PALESTINE BOOKS – No. 23

THE ART AND ARCHITECTURE OF ANCIENT PALESTINE

A Survey of the Archaeology of Palestine from the Earliest Times to the Ottoman Conquest

By

Dimitri C. Baramki



PALESTINE LIBERATION ORGANIZATION
RESEARCH CENTER

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PREFACE

It is with a certain feeling of trepidation that I approached the task of writing a book on the Archaeology of Palestine. There are three or four excellent books on the subject written by eminent archaeologists. Some of them, however, are Old Testament scholars and no matter how objective they attempted to be in the presentation of their material, they could not free themselves entirely from their Biblical background. Hence in most of the books on the Archaeology of Palestine there is an emphasis on the archaeology of the Old Testament period at the expense of other periods which are unrelated to the Bible. Indeed some of the authors do not conceal the fact by the very titles of their books.

There is no question that the archaeology of the Old Testament period in itself is of paramount importance, but equally important and perhaps more so are the periods following the Old Testament era which have been neglected so far. That Palestine during the Byzantine Period was of great importance is attested by the two thousand five hundred ruins of the era left in the country. The Arab hold on the country for thirteen hundred years, a period longer by far than any held by the other nations or races, is completely neglected. The splendour of the Dome of the Rock, the magnificence of the Umayyad palaces at Khirbat al Mafjar and Khirbat al Minieh, the formidable Crusader Castles and the exuberance of Mameluke architecture do not figure in any general book on the archaeology of Palestine and are completely ignored when an assessment of the contributions of the various nations to the civilization of the country is made. Biblical archaeolo-

gists tend to treat the four hundred years of Old Testament History as though they were the only important period in the history of the country. The six thousand years of settled life prior to the establishment of the United Kingdom of Israel and Judah tend to be treated as a preparatory era for the final triumph of the state of Israel without emphasizing the far higher level of civilization reached before the arrival of the Israelites.

This brief outline of the archaeology of the country seeks to remedy this omission and to put the contributions of each period in its true perspective. An attempt has been made to balance the role played by each nation in the past without any bias in favour of any one of them at the expense of the others.

Few illustrations have been included in this work, because of the excellent books of illustrations that have been published in recent years, especially J. Pritchard's "The Ancient Near East in Pictures" which can be used as a companion to this work.

The author was slightly handicapped by the limits placed on him by the publishers. The account had to deal strictly with Palestine and exclude Transjordan. Within these limits he has done the best he could, but reference to Transjordan archaeology had to be made from time to time.

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INTRODUCTION

A. The Importance of the Culture of Palestine

Palestine has from time immemorial attracted the attention of the faithful of all creeds and persuasion. It is the birthplace of two of the monotheistic religions of the world, Christianity and Judaism, and it is held with special veneration by the third, Islam, because of the presence of the third sanctuary of that faith, the Mosque of Al-Aqsa in the holy city of Jerusalem. From the inception of Christianity, pilgrims and travellers flocked to the country in ever increasing numbers in order to follow in the Master's hallowed footsteps and pay their respects to the sites sanctified by Jesus Christ. Even when the country came under Arab rule, pilgrims continued to visit it at a reduced pace. But their attitude was that of faith and belief and not of objective study.

Napoleon's expedition against Egypt in 1798 aroused the interest of Western scholarship in the Near East and one country after the other in the area came under the attention of Western scholars; first Egypt, then Iraq and finally Palestine and Lebanon.

A few decades after the establishment of the Anglican Bishopric in Jerusalem the need was felt for a more systematic and scientific study of the topography and archaeology of the Holy Land, and for the collection of more accurate information than that gleaned by gullible pilgrims and travellers. A number of societies were established in Europe and America, with England in the lead, for this purpose. Thus in 1865 The Palestine Exploration Fund was

founded for the purpose of "the accurate and systematic investigation of the archaeology, the topography, the geology and physical geography, the manners and customs of the Holy Land for biblical illustration". The Palestine Exploration Fund was followed by the American Palestine Exploration Society, founded in 1870 and by the Deutsche Orient-Gesellschaft founded in 1898. Although no similar French society was founded, the Dominican Fathers in Jerusalem led by the late Pere Hugues Vincent took an active interest in the archaeology of the country at an early date. To the accomplishments of these pioneers we shall have occasion to refer and treat in greater detail later on in this narrative, but for the present we shall restrict ourselves to alluding to the rousing interest which brought them into being.

However, besides its Biblical association, Palestine played another important role in the past. Together with its neighbours of Phoenicia and Syria, it was the trade route between the empires of the past, Egypt in the South, Mesopotamia in the East and Anatolia in the North. It also lay athwart the martial highway of the great centres of civilization and, as such, it was subjected to Egyptian, Sumerian, Akkadian, Babylonian, Assyrian and Hittite influence.

The country was thus of equal interest to the pious pilgrim, the biblical scholar, the historian and the archaeologist.

B. The Story of Archaeological Research in Palestine

Enough has been said in other publications about the important work

carried out by travellers during the last two centuries, but in view of the more scientific approach followed during the last hundred years, the travellers' accounts seem of little value at present. Real scientific work started in 1872, when the Palestine Exploration Fund sent an expedition to Palestine to make an accurate survey of the country under Captain C.R. Conder and Lieutenant H.H. Kitchener and produced a map in 26 sheets on a scale of one inch to the mile, on which all visible ancient remains were indicated. The Fund also published a seven volume account, one devoted to Jerusalem, three to a description of the historical sites indicated on the map and the others to the fauna and flora of the country.

The Survey of Western Palestine became a guide for the later excavators and indeed was the only survey available until the Palestine Government undertook another survey which was published in the early thirties of this century. Attempts at excavations were made after the appearance of the survey, but they were of little value, as no heed was paid to stratification and still less to pottery, but these early ventures did demonstrate that remains of important historical value lay hidden beneath the soil of the country.

The first archaeologist to convert archaeology from a hobby of the rich to a science of the first importance was Sir Flinders Petrie. While working in Egypt for a period of ten years he noticed that pottery changed from age to age and if accurately studied could be used as a criterion for dating. By closely observing the changes in the form of the ledge-handles in the cemeteries at Naqada, he was able to follow its development from age to age and by grouping

other types of pottery associated with each variety of ledge handle he was able to come out with a relative chronology for the early Egyptian pottery classifying it into various contemporaneous groups. Although he was unable to give the groups precise dates, he established their relative sequence. He divided early Egyptian pottery into fifty one groups, designating the earliest group S.D. 30 and the latest S.D. 80, leaving the first twenty nine figures for any groups that may later be discovered which were still earlier than his S.D. 30. That he showed great foresight was demonstrated later by the fact that earlier pottery than S.D. 30 was indeed discovered, the Tasian and Badarian, which is now classified as S.D. 21-29.

The Palestine Exploration Fund asked Petrie in 1890 to excavate the site of Tell-el-Hesi (the mound of pebbles) in south Palestine. Petrie opened a number of trenches of varying depths in the side of the mound and observed that the pottery at the bottom of each trench differed from the pottery collected from the other trenches. He came to the conclusion that each period had its own peculiar pottery and it is thus possible to give a relative chronology for each occupation level in a historical mound by a study of the pottery. Petrie may rightly be called the Father of scientific archaeology in Palestine. Frederic Bliss, son of the founder of the American University of Beirut, resumed the excavations at Tell-el-Hesi and was a whole-hearted support of Petrie's views.

The excavation of Tell-el-Hesi was followed, under the auspices of the Palestine Exploration Fund, by excavations in Jerusalem, carried out by F.J. Bliss and A.C. Dickie and excavations in four tells in the Shephelah by Bliss and

R.A.S. Macalister. No sensational discoveries were made but the stratification of at least three of the mounds was well established.

Between 1902 and 1909, Macalister tackled the site of Gezer on his own and although his methods were not flawless, he advanced our knowledge of Palestinian archaeology considerably, as he paid due regard to stratification and to changing patterns of pottery styles.

The last of the sites to be excavated by the Palestine Exploration Fund before the First World War was Ain-Shems, the site of ancient Beth-Shemesh. It was directed by Duncan Mackenzie, who had been excavating in Greece and who was able to recognize Philistine pottery which he discovered on the site in substantial quantities.

In 1901 the Deutsche Orient-Gesellschaft sent Ernest Sellin to excavate Tell Ta'annak (ancient Taanach), near Megiddo, where he discovered among other things, a number of cuneiform tablets. A second expedition was sent out under Schumacher to Megiddo in 1903 where he worked until 1905. In 1907 a joint German-Austrian mission was sent to Jericho under the direction of Sellin and Watzenger. As the German excavators were working in water tight compartments and neglected to acquaint themselves with the work of their British colleagues, they paid little heed to pottery and less to stratification and they arrived at the most fantastic conclusions.

A corner stone in Palestinian archaeology was fixed in 1908 when the Harvard excavation of Samaria was launched under the direction of G.A. Reisner

assisted by C.S. Fisher. The Samaria excavations may be considered the first fully scientific excavation. The expedition had ample funds at its disposal and was well equipped to undertake accurate surveying and measurements of architectural details and to take adequate photographs. Their records were methodical and precise. It was by far the most satisfactory expedition undertaken before the First World War.

The First World War naturally brought a halt to archaeological research; but with the establishment of the Mandatory Government in Palestine by Great Britain in 1922, a Department of Antiquities was set up in Palestine under the direction of experienced archaeologists and an Antiquities Ordinance was promulgated to foster archaeological research by foreign bodies and to restrict it to experienced archaeologists sponsored by institutions of learning. The new set up was very successful and there were continuous expeditions in the field from 1921 until the termination of the Mandate in 1948. A museum was founded by the Palestine Government in 1920, which was subsequently expanded through the generosity of John D. Rockfeller. Members of the Department of Antiquities undertook minor excavations. New schools for archaeology were established, like the British School of Archaeology and the American School of Oriental Researc in addition to those already in existence. The American School of Oriental Resear was housed in comfortable quarters donated by a generous American business man and was lucky to have as its director for a long period of time, Dr. William Foxwell Albright, whose profound researches and indefatiguable activity placed

Palestinian archaeology on a still more scientific bases. He trained and inspired a large number of students who later took an active part in the archaeology of the country.

Excavations were immediately started after the First World War, and a joint expedition under the auspices of the Palestine Exploration Fund and the British School of Archaeology in Jerusalem was launched at Ophel. The Oriental Institute of the University of Chicago started excavations at Megiddo in 1925 under the direction of Clarence Fisher. In the same year, Turville-Petre, who had had some experience in France, undertook the excavation of the Middle Palaeolithic cave of Mugharet ez-Zuttiyeh on the Lake of Tiberias, where in addition to a large number of Levalloiso-Mousterian flints, he discovered the upper part of a Neanderthal skull. He was followed three years later by Dorothy Garrod who came out to excavate the cave known as Mugharet Shuqbah in Wady en-Natuf, where she discovered a hitherto unknown culture, the Natufian. She was subsequently called away to take charge of the excavation at Mt. Carmel where Natufian flints and other artefacts were discovered by members of the Department of Antiquities in an exploratory excavation at the request of the Palestine Government in order to ascertain whether certain caves were worth saving. Miss Garrod excavated three caves, Mugharet el Wad where a rich Natufian culture was discovered, Mugharet et-Tabun where well stratified deposits ranging from the Acheulian to the Levalloiso-Mousterian, were encountered, together with human skeletons of a new sub-species of man now known as Carmel Man and Mugharet es-Sukhul.

The excavation of Jericho was resumed by Garstang between 1929 and 1936, when he reached the level of a Neolithic village. After the Second World War, Miss Kathleen Kenyon re-opened the excavations of Jericho and in addition to clarifying the chronology, she discovered a Neolithic tower and made other important discoveries about that age which will be dealt with in due course.

Sir Flinders Petrie returned to Palestine in 1927. He excavated at Tell Jemmeh, Tell Fara and Tell el Ujul (sometimes spelt Ajjul) in south Palestine, and retrieved a large number of ancient artefacts which now grace the Palestine Archaeological Museum in Jerusalem. At Tell Farah in Wadi Ghazzeh, amongst other things, he discovered five tombs with a rich assortment of Philistine pottery. At Tell el Ujul important buildings, ranging from Middle Bronze I to the Iron Age, were discovered super-imposed over one another.

A joint expedition under the direction of J.W. Crowfoot was carried out at Samaria between 1931 and 1935. This corrected the chronology of some of the important structures cleared by Reisner and Fisher, and discovered a large cache of ivories from Ahab's ivory palace. In addition, a number of important structures of the Roman Period were also discovered including a temple and a theatre.

The late J.L. Starkey left Petrie in 1934 and opened up a new excavation at Tell ed-Duweir, which proved later to be the site of Lachish. He discovered a palace built during the Persian Period, a city-wall of the Iron Age, Hebrew

ostraca from the time of Nebuchadrezzar and seven hundred skulls, three of which were trepanned, in a large cave on the site.

Between 1921 and 1933, the University of Pennsylvania Museum undertook the excavation of ancient Beth-Shan under several directors. A number of fortresses belonging to the Fourteenth to Twelfth Centuries B.C. were cleared, as well as a number of temples of the Late Bronze Age.

In his numerous books on the archaeology of Palestine Albright does scant justice to the great contributions which he himself had made to a better understanding of Palestinian archaeology. No one man has contributed as much as he had, and practically every archaeologist working in the country profited from his great experience. Albright had a large number of students who are to-day counted among the foremost archaeologists on Palestine, but even those who did not directly study under him, were greatly influenced by his magnetism and shrewd judgment. Albright calls Petrie the Nestor of archaeologists, but he himself shares that honour with him. Equally at home with the pottery of Palestine and a deep knowledge of Semitic languages, he has proved a great boon to the archaeology of Palestine. During his stay in Palestine he excavated a number of sites including Tell el Ful (Gibeah of Saul), Beitin (Bethel) and Tell Beit Mirsim (Kiriath Sefer) and visited practically every other expedition in the field. Thanks to his keen observation and meticulous heed for detail, the chronology of Palestine pottery now stands on a sure footing.

Tell en Nasbeh, perhaps Mizpah of Benjamin, was excavated by W.F.

Badè about the same time that Albright was excavating at Tell Beit Mirsim. Th site was completely excavated, but Bade died prematurely and the results of his work were published by C.C. McCown.

Between 1928 and 1933 Elihu Grant re-opened the excavations at Beth Shemesh. Other excavations carried out under the auspices of the American School of Oriental Research include Ovid Seller's excavations at Beth-Zur, J.L. Kelso's excavations at Tulul Abu el Alayiq, Colt's excavations at Sbeita, Auja el Hafir and other sites in the neighbourhood of Beersheba.

The excavations of Balata were started in 1934 by the German scholar G. Welter-M·ıve and H. Steckeweh, but with ungratifying results. The excavations were resumed after the Second World War by G. Ernest Wright, a student of Albright's, and a better understanding of the stratification of the mound was established.

The site of Ai was excavated by Judith Marquet-Krause in 1933-34; a city wall and a temple of the Early Bronze Age were discovered and a fine select of pottery from the same date was found in a cemetery nearby. Pere De Vaux excavated at Tell el Far'ah, possibly ancient Tirzah, where he discovered remains of the Chalcolithic, Early Bronze and Iron Ages.

James Pritchard excavated at Gibeon where he discovered an interestin water-system and a number of inscribed jar-handles. J.P. Free excavated at Dothan. At Abu Matar, near Beersheba, Jean Perrot discovered a Chalcolithic site which showed four phases of occupation. The sensational discovery of the

Dead Sea Scrolls in caves near the north end of the Dead Sea, led to the excavation of Qumran by Pere De Vaux and Gerald Lankester Harding.

The Department of Antiquities in Palestine undertook a large number of excavations, mostly from the more recent ages. C.N. Johns excavated the Crusader Castle at Athlit and a Phoenician cemetery at a site nearby. A number of Early Christian Churches were excavated by the present writer as well as an imposing Umayyad palace near Jericho. A second Umayyad palace, discovered at Khirbat al Minieh on the Sea of Galilee, was excavated by Dr. Puttrich of the German Archaeological Institute. R.W. Hamilton excavated Tell Abu Hawwam where he discovered five successive occupation levels ranging from the Late Bronze to the Graeco-Persian Period, with a long break of three centuries from the Tenth to the Seventh when the site was abandoned.

C. Methods Adopted in Archaeological Research

The methods generally adopted in archaeological research in the Near East may be classified under two categories namely,superficial exploration and excavations. The first method does not involve excavation and is mainly restricted to the survey of the visible monuments above the ground and the preparation of an accurate record of them for a comparative study with similar or contemporary monuments elsewhere. Palestine, Phoenicia and Syria contain a large number of monuments which throw light on the architecture of the past and the uses, religious or secular, to which these monuments were put. Many such well

preserved monuments still rear their heads, defying the efforts of time and man to obliterate them. Examples can be multiplied of this type of monument but it would be sufficient at the present moment to mention only a few such as the Dome of the Rock, the Holy Sepulchre in Jerusalem, the Hellenistic mausolea in the Valley of Jehosaphat, the Roman temple at Samaria, the Roman theatre at Beisan, and the Crusader Castles at Athlit, Qal'aat al Qurein and Abu Ghosh. More monuments will be dealt with later on in this narrative. Other very important types of monuments of this nature are the numerous historical mounds which dot the countryside of the Holy Land. These flat-topped mounds, or "tells" as they are locally called, conceal beneath their folds remains of several ancient cities superimposed one on top of the other. They can be recognized by their flat tops and steeply sloping sides and also by the numerous potsherds strewn on the top of the mound and along its sides; it is possible from a study of these sherds to deduce the span of time during which any particular site was occupied, and also, with luck, the periods during which it was abandoned. This study is very important as it can be used as a guide in the selection of sites for excavation.

By far the more important of the two methods of archaeological research is the systematic excavation of ancient historical sites. This method, if carefully carried out, yields better returns and produces more information on the material culture of the past than any other method of research. The greater the care with which the discoveries made in such excavations are recorded, the greater will be the information that the site will yield. If the maximum information

is to be obtained from a site then the excavator's records must be so complete and perfect as to enable him to place back hypothetically in the excavated site, all the walls,objects, burnt layers and other important details in their exact original position before removal. The place of every object, however small and insignificant must be recorded both horizontally and vertically in relation to previously selected datum points, and in relation to rooms, walls, floor levels, and burnt layers and also to other objects in its proximity. Then and only then can the site be considered as well excavated and may be expected to yield up its secrets and supply invaluable information to the archaeologist and historian. It is not possible to interpret intelligently the results of any excavation if the records are inadequate, incomplete or faulty. All archaeological expeditions must include a qualified surveyor, an architect, a photographer and a cataloguer among its staff. Labourers should be kept under close observation and constant supervision and nothing must be removed from its place of discovery unless it has been amply and properly recorded in situ. One cannot sufficiently stress the need for this accuracy in records and one of the primary qualities required in an archaeologist is patience. It should be remembered that excavation involves destruction; in the course of excavation all evidence is obliterated, walls have to be dismantled and objects have to be removed from their original position; if no sufficient record is made before this is done, then the excavation degenerates into an act of vandalism. This explains the reason why only persons with long training and experience in the field are allowed to excavate historical sites nowadays by most

authorities entrusted with the care of ancient monuments and historical sites in their country.

D. Types of Historical Sites in Palestine

The historical sites of Palestine may be roughly divided into four main groups or classes namely, prehistoric stations and caves, artificial tumuli or mounds, visible ruins of cities and villages and finally ancient tombs and cemeteries.

Many plains and riverside terraces in Palestine were inhabited by man at a very early age, when the imperishable tools and weapons used by him were made of flint or chert. Primitive flint implements have been found in large numbers at the plain of Rephaim south of Jerusalem, below the foot of Jabal Fureidis southeast of Bethlehem and elsewhere. The occupation of these stations goes back to the Lower Palaeolithic Age at a time when man, whatever his species may have been, lived out in the open. The dried valleys of Palestine are denuded with large natural caves into which Neanderthal man moved, presumably seeking shelter from the cold of the approaching Fourth Pluvial or Ice Age, during the Middle Palaeolithic Period. These caves contain layers upon layers of soil which took about 30,000 years to accumulate. Flint implements of varying shapes and dimensions turn up in large numbers in each of these well stratified layers and give a clear indication of the development of the flint industry from the previous age. Some of these caves like the cave of Mugharet ez-Zuttiyeh on the

Lake of Tiberias, Mugharet et-Tabun on Mt. Carmel, the caves in Wadi Khureitun south of Bethlehem and the caves at Jabal Qafzeh near Nazareth have been excavated and have shed some light on the progress of primitive man from about 100,000 down to about 10,000 years ago. Others are still awaiting the spade.

Like the neighbouring countries of Syria and Lebanon, Palestine is dotted with a large number of artificial mounds formed by the accumulation of the ruins of ancient cities, which were superimposed on top of one another. The earliest phase of occupation in such sites goes sometimes as far back as the Neolithic or at least the Chalcolithic Age and the latest layer may be as late as the Hellenistic Age. Some sites contain the remains of no less than eighteen or twenty cities, superimposed one on top of the other, while others are not so pretentious. The curious method in which these artificial mounds grew is not devoid of interest and is worthy of notice. Sometime during the Neolithic Period, when villages were first established, a tribe descending from its abode in one of the caves in the hills, would select a slightly raised patch of ground and build their huts on it, in close proximity to the fields which they had chosen for cultivation. For some reason or another, such as foreign invasion, plagues, conflagrations, or earthquakes, the village in question would be destroyed and abandoned. The debris of the destroyed village would in due course be levelled off by new folk, and a new village or city would rise on top of the old one; the same phenomenon would then be repeated several times and the ground level of each new city would be raised higher and higher all the time, that within a few

centuries the level of the site would rise several metres above its original level. Each time that a village or a city is destroyed the floor level and any objects lying immediately on it, would remain intact, and only the upper parts of the walls would be pulled down in order to fill the uneven depressions in the ruin. Thus after the site had come into occupation several times, remains of occupation would be well preserved in spite of the frequent destruction to which the site may have been subjected and the remains of the cities founded on the site would be left undisturbed until exposed by the excavator. It should be remembered that after a great catastrophe the site may be abandoned for a while and need not necessarily be occupied immediately afterwards; sometimes, a site may be abandoned for a number of decades or even several centuries. Tell Abu Hawwam, for example was abandoned for three centuries as we have seen, and Gezer was left unoccupied for five centuries, from the Tenth to the Fifth. Thus an occupation level of one period may rest on the ruins of an occupation level considerably older than it in time, and with a considerable time gap between the two. Another disturbing influence is denudation. An entire occupation level may be denuded and disappear as Miss Kenyon discovered at Jericho.

Besides the "tells" which may well be quite bare on top, there are ruins with clearly defined walls which rise above the ground and which are not completely covered by debris or concealed from view. They are mostly found on level ground and generally mark the sites of previous Roman, Byzantine or Arab settlements. There is generally little or no stratification in such ruins and they

make good training ground for beginners in archaeology.

The cemeteries of the past were generally situated, with the exception of the Neolithic and Chalcolithic Ages, outside the city-walls. They consisted primarily of small rock cut or natural caves on the leeward side of the city. It is from these cemeteries that excavators obtain the bulk of the intact artefacts, if the cemeteries have escaped the attention of looters and have remained undisturbed since they were last used. Extra care should be exercised in the excavations of tombs and cemeteries, as the disposition of the bodies and the objects buried with them, may and often does throw light on the burial customs and religious practices of the people concerned.

The chief aim of archaeological research is to enable us to draw a picture in our minds of the mode of life man led from age to age, the changes which he introduced in his mode of life from one period to another, and the causes and effects which brought about these changes. Thus the location of Palaeolithic stations and the type and shape of the flints found in them help us to visualize the life led by primitive man in Palestine half a million years ago. They evoke before us a picture of a superior animal contending with the wild beasts and huge reptiles surrounding him with the help of clumsy weapons; he lived on hunting and the gathering of wild fruits; his needs were simple, but the means of satisfying them were arduous and required strenuous efforts and the expenditure of great energy. The struggle for existence was a real physical struggle. We witness the gradual progress of man from this simple and primitive economy to a more complicated

mode of life and we watch his persistent efforts at harnessing the forces of nature to the satisfaction of his ever increasing needs. The picture is hazy at first, but it gradually comes into focus and assumes a more definite form with every new age.

The progress we witness is very slow at first but it gains greater and greater momentum as we advance in time. We shall view the great revolutions which took place in man's economy at certain selected stages in his civilization and the great strides he made in his cultural progress, which preceded those upheavals and helped to bring them about. The ushering in of agriculture into man's economy during the Mesolithic Age, the rise of the first villages of the Neolithic Age, the growth of cities in the Early Bronze Age, the rise of world empires in the Middle Bronze Age, all these are closely related to one another and each advance made is the result of the developments that preceded it. Side by side with these great revolutions we shall witness the growth and expansion of trade, the development of architecture, the invention of pottery and the replacement of flint by bronze and iron as material for weapons and tools, and the emergence of religious concepts and artistic expressions. Finally, we shall see how each new invention was made to satisfy a need and how each need was stimulated by an invention that preceded it. The law of cause and effect was in perpetual operation. We may pause at some stage in our study in order to admire man's ingenuity for making some inventions of great importance such as the invention of the wheel, the creation of systems of writing or the adoption of some forms of government, but when we probe farther step by step into the causes and effects which led to these inventions, we shall see that they were the logical outcome of

an interplay of forces which had been in operation for a long period of time; whether the invention involved the creation of a system of writing, the development of representational art, the invention of the wheel or the myriad other inventions which we now take for granted, but which were laboriously and empirically worked up by man in his effort to satisfy his ever increasing needs by ever more complicated inventions. We shall follow the growth of his religious beliefs, his increasingly complicated systems of architecture, the more advanced expressions of his aesthetic sense, the elaboration of his mode of dress from nudity to the wearing of animal skins, to woollen plaids, to silk and finally to nylon and the complexity and diversity of his industrial output in all fields. As we advance in our study and delve deeply into it we shall forget the culture of our own time and get transported back through the ages to that primitive man of simple means and then advance with him step by step, through the various changes of his culture to our own day, and "perhaps forecast dimly into the future". We shall find that it is a romantic experience, well worth the effort we put into it.

E. The Great Stepping Stones of Human Culture

From a very early date philosophers and scientists attempted to schematize the stages in the culture of man and the progress of his civilization. The attempts of the early Greek and Roman philosophers may appear to us naive and amusing, but the fact that they arrived at some conclusion by the analysis of the material at their disposal is a great advance which is not to be despized. The

scientists of a later day made similar attempts and only succeeded because of the advance in our knowledge, thanks to the great material which has accumulated since the days of Aristotle and Lucretius. The scheme now universally accepted divides the great stages of man's cultural development into five clearly defined periods as follows:

I. The Stone Age.

The beginning of the Stone Age is still a matter of controversy among scientists, but it is safe to place it tentatively at least at about half a million years ago. The end of the period is more clearly marked on the evidence of the ceramic industry and other developments and may be placed about 4000 B.C.

II. The Chalcolithic Age.

This is a transitional period between the Stone Age and the Bronze Age. In many ways it is a misnomer, as copper was not generally used in the first half of this period which lasted about 1000 years roughly from 4000 to 3000 B.C., and some archaeologists prefer to call it Aeneolithic. As we shall see in due course, it marks a definite departure from the Neolithic Age in the ceramic industry and in architecture, and prepares the ground for the forthcoming Bronze Age.

III. The Bronze Age.

Again the beginning of this age has been fluctuating in recent years, but roughly speaking it started about 3000 B.C. and ended about 1200 B.C.

Some archaeologists prefer to place the beginning of the age in 3100 B.C. or even a few decades earlier; but this is by no means certain as yet. In the Aegean it certainly started a few decades later than 3000 B.C.

IV. The Iron Age.

The beginning of this period may be placed in 1200 B.C. and the end about 550 B.C. Some archaeologists however reckon the Persian Period as part of the Iron Age and consider the arrival of Alexander in Phoenicia, Syria and Palestine as the end of the Iron Age. In Cyprus, the corresponding Geometric Period does not start till about 1050 B.C.

V. The Period of Historiography.

This embraces the Classical, Hellenistic, Roman, Byzantine and Arab Periods.

Historiography however must not be confused with historical inscriptions. It is true that historical information can be gleaned from historical inscriptions giving annals of kings and their own achievements, but these are not of the same category as the Works of Herodotus, Thucidydes or the later historians whose aim was to write historical accounts to posterity as distinct from personal annals and autobiographies.

Chapter II

PALESTINE IN THE PALAEOLITHIC AGE

The mountains and coastal strips of Palestine, Phoenicia and Syria were formed by calcareous deposits which were laid during the Cretaceous period when the area was submerged by the waters of the ancient Tethys Sea. Because of the convulsions and upheavals which took place in the earth's surface at the beginning of the Tertiary Age, some fifty million years ago, a great depression was formed in the area which produced the land locked Mediterranean Sea; the waters receded from the earth's surface over Palestine, Phoenicia, Syria and other adjacent countries. Towards the end of the Tertiary Age, some two million years ago, the eastern seaboard of the Mediterranean became the scene of great volcanic activity accompanied by great terrestrial convulsions and upheavals; the Carmel Range and the hills of Samaria and Judaea rose to their present height, and the Great Rift embracing the Biqa in Lebanon, the Jordan Valley and the Red Sea came into being.

Man appeared on the face of the earth sometime during the Pleistocene Period which is only a million years old. At what stage in the Pleistocene Period the human race evolved is still uncertain; this problem lies outside the scope of this book which is merely concerned with the appearance of man as a tool producing individual. Before attempting a discussion of this topic it is necessary to digress slightly into the realm of geochronology and discuss the geological transformations of the crust of the earth.

The surface of the earth during the Pleistocene Period was subjected to four great glacial periods, interrupted by three great interglacial ages. It should be remembered, however, that in the Near East glaciation was not so extensive and the phases in question were noted more for their excessive rainfall and cold weather rather than for the spreading of a thick sheet of ice over its surface as in Europe. Hence geologists prefer to call the periods Pluvial and Interpluvial rather than Glacial and Interglacial phases. These phases were first noted in Switzerland and acquired the names of the Swiss scientists who noted them. The First Glacial or Pluvial Period is called Gunz, the Second Mindel, the Third Riss and the Fourth Wurm. The Interglacial or Interpluvial Periods are indicated by hyphenating the names of the glacial or pluvial phases between which the interpluvial period falls. Thus the First Interpluvial Period is called Gunz-Mindel, the Second Mindel-Riss and the Third Riss-Wurm. The lengths of these pluvial and interpluvial periods varied considerably and some of them have been further divided into sub-periods on the score of intensity and lightness of the impact of the ice in Europe or the rainfall in the Near East. The Gunz-Pluvial Period is stated by Zeuner to have ended about 550,000 years ago.

Most geochronologists and archaeologists are of the opinion that man emerged as a tool producing individual during the Second, or Mindel-Riss, Interpluvial Period although some authorities, like Zeuner, prefer to place this event during the First or Gunz-Mindel Interpluvial Period about half a million years ago. Be that as it may the earliest tools made by man, the Abbevillian

(formerly called Chellean) hand-axe or coup-de-poing, continued in use from its first inception down to the end of the Second Interpluvial Period.

The Stone Age can be divided on typological and chronological grounds into three clearly defined major phases. The first phase is the Palaeolithic or Old Stone Age. It naturally had a long lease of life starting either during the Günz-Mindel or the Mindel-Riss Interpluvial Period, and continuing down to about 8000 B.C. The second major phase is the Mesolithic, or Middle Stone Age which had a relatively short span of only 2000 years; it started about 8000 B.C. and ended about 6000 B.C. The third phase is the Neolithic, or New Stone Age, which lasted for about 2000 years extending from about 6000 B.C. down to 4000 B.C.; but it is convenient perhaps to add on to it the Chalcolithic or Aeneolithic Period which roughly embraces the Fourth Millennium B.C. But these dates are only approximate, and are subject to revision. For example evidence from some sites, such as Jericho, shows that the Neolithic started as early as 6800 B.C. Similarly some sites in Asia Minor show that the Neolithic started as early as 6500 B.C.

Within each of the major phases, especially the Palaeolithic Age, it is only natural to find considerable variations in types and techniques in the manufacture of flint tools as we proceed in time, making it necessary to subdivide each of the various major phases into still smaller subdivisions. The Palaeolithic Age has been divided into three such sub-periods, the Lower, Middle and Upper Palaeolithic. The Lower Palaeolithic covers the culture which developed from the earliest times, say about 500,000 to 400,000 years ago down to about 60,000

years ago; in other words it extended down to the end of the Riss-Wurm or Third Interpluvial Period. The Middle Palaeolithic Period covers about 30,000 years extending from 60,000 to 30,000 years ago and embraces the Riss-Wurm Interpluvial and the first phase of the Wurm Pluvial Period. The Upper Palaeolithic Period extends from 30,000 to 10,000 years ago. It should be borne in mind however that chronologically no hard and fast line separates one period from another and there is a considerable overlap between the successive periods which may in some cases extend for as much as 10,000 years.

The Lower Palaeolithic Age witnessed the rise of two major flint industries, the Abbevillian and the Acheulian, called after Abbeville and St. Acheule in France where they were first noted. The two industries produced hand-axes, or coup-de-poings, which are invariably encountered in Palestine in open stations and riverside terraces, indicating that man at that age lived out in the open, and perhaps took shelter from other animals at night on tree-tops. The Abbevillian hand-axe or fist hatchet is a bulky and clumsy flint tool, very roughly made. It is characterized by a blunt head, and a thick body. Such hand-axes have been found in the plain of Rephaim, southwest of Jerusalem, in a valley north of Ramallah and in various other places. The Acheulian hand-axes were a great improvement on the Abbevillian in many ways; of these there are two varieties, one, the earlier, was flat, bifacial and triangular in shape, and provided with a sharp point. The other and later variety was discoid in shape and sharpened around the edge; it is considerably smaller than the triangular type. The industry of the Lower

Palaeolithic Age is strictly a hand-axe industry; but in the process of manufacturing the hand-axes, a bye-product resulted in the form of a flake, now called Clactonian, after Clacton in England where it was first discovered. A Clactonian flake is accidental and not purposely struck from a previously prepared core. Examples of these have been found in Mugharet at Tabun in the Carmel Range, the plain below Jebel Fureidis and many other places. Associated with the Acheulian flints we find sometimes stone-blocks, known as manuports whose actual use is unknown. It was with these primitive weapons and tools that Lower Palaeolithic man, whose species is still undetermined, contended with the snakes and wild beasts with which he was surrounded like the rhinoceros the hippopotamus, the elephant and the ox and with the pugnacious members of his own species. The animals in question are now extinct in Palestine, but their bones are generally found in the Lower Palaeolithic stations of the country.

At the end of the Riss-Pluvial Period about 60,000 years ago a new species of man appeared who moved his abode into the large caves along the valleys of Palestine, in search of shelter. In the process of making some of his flint tools a spark must have struck some dried leaves and set them on fire. We can well imagine how frightened man must have been at the outset from this experience, but he soon learnt how to control fire and put the discovery to good use. He proceeded to light fires in order to warm himself during the inclement weather that set in with the approach of the First Phase of the Wurm Pluvial, to scare away wild animals and to roast the game which he caught. The discovery

of fire revolutionized his mode of life and his industry, and ushered in the Middle Palaeolithic Age. His weapons underwent great changes. He was no longer satisfied with his hand-axes, but proceeded to utilize the chippings which he struck off the flint core as well. In Palestine new types of flint tools and weapons made their appearance, similar but not identical with those discovered in France at Levallois and La Moustere. Archaeologists call the industry Levallois-Mousterian. The flints of the period consist of flakes struck off a previously prepared cores. They were probably made by heating a nodule of flint on the fire, and striking flakes off it with a stick or a wooden mallet. As flint is a bad conductor, the surface is heated only and expands making it easy to strike a thin flake off it. The flake would then be worked into a convenient shape and sharpened on both sides (racloir). Most Levallois-Mousterian flakes developed a bulb at the point where they were struck off the core, the point of percussion, and the surface of the flint above the bulb was rippled. It was convenient for use as a fighting weapon, as a scraper for skinning animals and as a knife for carving the meat of his game. The core, on the other hand, after it had been reduced into a convenient size by continual flaking, can eventually be used as a hand-axe, but it was essentially a bye-product like the Clactonian flake of the Lower Palaeolithic Age. But the main industry was a flake industry. Thanks to the methodical excavation of a several dwelling caves of the Middle Palaeolithic Age at Mt. Carmel in Palestine, Miss Garrod has been able to establish the species of man who was responsible for this culture; at the beginning of the age, about 60,000 years ago,

it was Homo Neanderthalensis or Neanderthal Man, but about 40,000 years ago, a new species of man, related more to Homo Sapiens than to his Neanderthal counterpart, started making his appearance, and by the end of the period Neanderthal Man disappeared altogether. In Europe however the case is otherwise and Homo Sapiens did not make his appearance till the beginning of the Upper Palaeolithic Age about 30,000 years ago. Thus the struggle of species between Neanderthal Man and Homo Sapiens may well have been staged in this part of the world. Examples of Levallois-Mousterian flakes and cores have been found in caves such as Mugharet ez-Zuttiyeh on the Lake of Tiberias and Mugharet et-Tabun at Mt. Carmel. At Mugharet ez-Zuttiyeh, the cranium of a Neanderthal Man was discovered associated with Levallois-Mousterian flakes.

Half way through the Wurm Pluvial Period, the Levallois-Mousterian culture was replaced by the Yabrudian blade culture which is only found in this part of the world.[1] Examples were discovered at Jabal Qafzeh near Nazareth and at Wady Khureitun south of Bethlehem. The Yabrudian culture was followed by the Aurignacian culture of the Upper Palaeolithic Age. This culture is distinguished by the smaller size of its implements and weapons and by the greater variety of its forms. Thus in addition to cores and <u>racloirs</u> (blades sharpened

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[1] The difference between a flake and a blade is very easy to determine; a blade generally has parallel sides and parallel scars on the back. A flake is generally triangular in shape, and the scars on the back cross each other in various ways. This is due to the method of striking to some extent, but to a greater extent to the shape of the previously prepared core. Flakes were struck off a flattened core, whereas blades were struck off a cylindrical core.

along the sides), grattoirs (blades provided with sharp points), burins or gravers make their appearance as well. The Aurignacian culture in Palestine was followed by purely local industries, unlike the Solutrean, Magdalenian and Gravettian cultures of France. Both at Mt. Carmel and at Jabal Qafzeh, examples of Aurignacian and subsequent cultures (which Miss Garrod called Athlitian, after Athlit at the foot of Mt. Carmel where she first encountered them) were discovered in stratified levels. The species of man responsible for these cultures is Homo Sapiens.[1]

During the three phases of the Palaeolithic Age man lived entirely by hunting and gathering wild fruits and herbs, going about the countryside naked, or wearing an animal skin slung over his shoulder. During the Lower Palaeolithic Period no evidence has been forthcoming so far, regarding belief in after life. We do not know how Lower Palaeolithic man disposed his dead. As he was a cannibal, he probably ate them. But during the Middle and Upper Palaeolithic Ages a primitive religious concept and a belief in an after life arose; many carefully laid burials have been discovered, in which the "precious" personal belongings of the deceased were included.

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[1] The industry of the Upper Palaeolithic Age has been classified into six phases with some technical variations between one phase and the other.

B. The Mesolithic Period

By about 10,000 years ago, the Wurm Pluvial Period came to an end, but man continued to live in caves by force of habit. A great change occurred, however, in man's economy at that time which revolutionized his mode of life and changed the course of world history. Agriculture was ushered into history and animals were domesticated for the first time; man became a producer of food, and ceased to be only a food gatherer and hunter as hitherto. The significance and implication of this great revolution will be realized in due course. Man had been eating various types of wild herbs and grass from time immemorial, but it never occurred to him to cultivate the wild seeds until this period. At first it seems that he brought more and more land under cultivation and came to depend for his sustenance on the produce of the land. It is generally thought that woman, while her male consort was away hunting, experimented with some edible seeds and ushered agriculture into world history.

The flint industry of the Mesolithic Age, which lasted roughly from 8000 to 6000 B.C., has been characterized as microlithic, because of the minuteness of the size of the implements and weapons of the period. The tendency of reducing the size of tools which we noticed from the Lower Palaeolithic to the Upper Palaeolithic Age reaches its climax during the period under discussion. Side by side with this general diminution in size, there emerged a greater variety of types and forms. A large assortment of blades and points make their appearance, the most characteristic of which are lunate in shape; a new variety of scraper

(burin), also makes its appearance; it is provided with a sharp point and is so made that when this point become blunt with use, a small segment can be struck off the tool in order to provide a new sharp point. Sickles were made by inserting a number of blades in the jaw-bones of animals or along the slit side of a curved branch. Considerable pain was attached to the sickles. Two beautifully carved sickles were discovered at Mt. Carmel. One of them consisted of a femur of a bovine carved with the body of a calf in the attitude of suckling. Picks and hoes, probably tied to bone or wooden handles were used for tilling the soil. Basalt querns for grinding wheat also appear for the first time. The Natufians lived also by fishing as bone fish hooks were discovered at Wady en-Natuf. Examples of this culture have been discovered by Miss Garrod at Wady en-Natuf in Central Palestine and at Mugharet el Wad at the foot of Mt. Carmel. The industry is now called Natufian after the first place where it was discovered by Miss Garrod, although richer varieties were discovered by the same archaeologist at Mugharet el Wad near Athlit.

It was perhaps during this period that man started wearing beads. In Mugharet el Wad at the foot of Mt. Carmel skeletons were discovered with a head band of beads made of dentalia shells. They adorned themselves with necklaces made from the toe-bones of gazelles or turquoise beads. Similar dentalia shells were discovered at Ain el Mellaha on the Lake of Huleh.

The recent excavations in Jericho have shown that it was the Natufians who first left the hills to descend and settle in the plains, probably living in tents

made of animal skins or in pits covered by branches somewhere about 7800 B.C.[1]

The only animal to be domesticated during this age is the dog. Evidence of this comes from the Mt. Carmel caves.

Thus the Mesolithic Period paved the way for the advance of man from a state of savagery to the foundation of the first villages in history.

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[1] This date is given by Carbon 14 determination.

Chapter III

THE RISE OF VILLAGES IN PALESTINE

A. The Neolithic Age

The Neolithic Age is an outstanding landmark in the history of mankind, as it was during this age that the seeds of civilization were laid. The many important changes in man's manner of life which took place during the period have led many archaeologists to hail it as an era of revolution as it witnessed a great upheaval in man's economy and was a great spurt forward in man's culture over the preceding age. The sharp contrast between the Mesolithic and the Neolithic Ages is best seen in the expansion of agriculture and the rise of villages in the latter, including some which were fortified. The Neolithic Age also witnessed the rise of small industries and ushered architecture into world history; the pace of progress was considerably accelerated. The reliance of man more and more on his agricultural and farm products for his sustenance as against the hazards of hunting impelled him eventually, perhaps about 6000 B.C.,[1] to leave his abode in the caves in the hills and descend into the plains. By virtue of this move, he had a relatively larger area for cultivation at his disposal and at the same time he was close at hand to protect his crops from the depredation of his neighbours and from the ravages of wild animals.

The later stages of the Neolithic Age in Palestine mark the advent of a

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[1] In Jericho this happened considerably earlier as we have seen.

new folk who brought with them an advanced culture which developed in one of the neighbouring countries. Villages sprang up all over the country in such localities as Jericho and Sha'ar Hagolan and other places.

Village life however proved far more complicated than dwelling in caves, and the move to the plain presented a new challenge which had to be met and created new needs which had to be satisfied. Thus a definite break in the flint industry is noticeable. The minute flint implements of the Mesolithic Age were discarded and larger types of tools and weapons, with highly polished edges were substituted for them. Large axe-heads, more or less rectangular in shape, made their appearance for the first time in history; they were provided with a sharp highly polished cutting edge at one end and a blunt rough head at the other, indicating that they were tied either with leather thongs or with wicker work to a wooden haft or handle at the rough end. Sharp pointed pick-heads from five to six inches in length also appear in large numbers for the first time; they were no doubt used for tilling the soil. Besides these, there were arrow-heads of two varieties, either shaped like a large letter V or like a laurel leaf and tanged. In addition, Neolithic man produced tanged spear-heads with a notch at the base for attaching to the lance pole, saws with jagged edges for sawing wood and bone, knife blades, probably provided with handles, for cutting animal skin into thin strips of leather thong, besides other uses, awls for piercing animal skins for sewing with leather thong into garments or skin storage vessels. Besides these flint tools, there were black and green serpentine celts for fighting and for wearing

as amulets. Mace-heads of limestone were produced both for use as weapons or as symbols of authority; these were the precursors of the later royal sceptres.

The earliest villages were very small and had a short lease of life. A plot of land would normally be selected and cleared from shrubs and weeds, and then cultivated. A few flimsy huts built mostly of reeds and rush mats were then erected close by. After a number of years when the villagers noticed that the yield had decreased appreciably they would move lock stock and barrel and start another village somewhere else, where they would settle for a number of years only to move away to another locality. This process went on for a while until Neolithic man discovered the value of the rotation of crops, probably by accident, when a larger section of the jungle was cleared and plots were cultivated by turn, leaving some fallow and cultivating others by turn. Rotation of crops led to a more sedentary life and gave leisure to the further progress and expansion of industry.

Another important feature of the Neolithic Age was the domestication of animals. Hitherto there is evidence that the dog was only domesticated in the Mesolithic Age as previously stated. The middens of the Neolithic Age contained bones of domesticated cattle, sheep and goats. The animals were attracted by the stubble after harvest to the cultivated fields and they were probably hunted by Neolithic man. When he could not eat all he hunted, he very likely laid snares for the animals, caught them and domesticated them. Domesticated cattle, especially sheep, has been correctly described as a walking larder. It provided milk, venison, wool and animal skins.

The later Neolithic villages consisted of a number of huts huddled around a central shrine. The villages were generally founded near a source of water supply such as springs or streams. At the outset the water from these sources was only used for domestic purposes and not for irrigation. Ditching and dyking were a later development. The later huts were built of handmade bricks over a stone foundation. Quarrying was unknown and the foundation stones were gathered from dried river beds or from odd field stones which had become detached from the parent rock by the natural action of heat, cold and rain water. The hut was rectangular in plan, and generally rather narrow on its long axis because of the problem of roofing. The Neolithic flint axes could only lop off thin branches or fell trees with thin trunks. It would have been a very laborious and arduous a task to fell down trees with thick trunks with this type of tool; so perforce the Neolithic inhabitants of Palestine had to be content with narrow huts which can be spanned along their short axis by small branches say about six to seven feet long. The floor of the hut was covered with mud and the walls were plastered with the same material. The roof consisted of logs laid along the short axis of the hut and covered with leaves and mud.

Although the Neolithic dwellers of Palestine relied on agriculture and the domestication of animals for their sustenance, hunting was not entirely abandoned, as the large number of arrow-heads testify.

Thus during the first thousand years of the period, liquids were stored in animal skins or stone vessels carved painstakingly by hand and crops were

stored in mud silos. But somewhere about 5500 B.C.[1] pottery was invented, perhaps accidentally, and most of their storage vessels were made of that medium. It has been suggested that the invention of pottery was due to the conflagration of one of the Neolithic villages, perhaps at Jarmo in Iraq or at Merimde in Egypt or at some other Neolithic settlement. The villagers noticed that the clay, with which their huts were built became impervious to water on being subjected to intense heat. Whereupon they experimented with some vessels, which they built bit by bit as they had been in the habit of building their dwellings and the first pottery vessels were thus produced which could hold water and other liquids. Dr. Schaeffer has discovered unfired clay vessels at Ras Shamra in his earliest pottery Neolithic level. He believes that it was these clay vessels, which when fired accidentally in a conflagration had suggested the idea of fired pottery rather than the conflagration of a few huts. The earliest clay vessels discovered at Ras Shamra were clumsy vessels with thick walls which contained straw as a binder and were not fired. Soon afterwards, the Neolithic inhabitants of Palestine started lining baskets made out of wicker work with clay and then firing them, burning the wicker work in the process. The wicker work industry was developed to a high degree of perfection and Neolithic folk were very adept at the craft; they made a large variety of baskets and were thus able to produce a great variety of pottery forms. In process of time they copied the vessels which they already had and, by using clay rings of various diameters, they were able to make vessels

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[1] At Hassuna in Iraq pottery was found which goes back to about 4800 B.C.

with curvilinear walls without going through the expense of burning and destroying useful wicker baskets. They decorated the outside of their vessels with incisions in imitation of the impression of wicker work on clay; this gave their pots a rippled surface as the Badarian pottery of Neolithic Egypt. Later still they painted their vessels with dyes and also burnished the surface of the pot to a high polish with river pebbles.

The pottery forms of the Neolithic Age of Palestine are limited to jars, bowls, saucers, cups and dippers. The jars are generally made with flat bases, vertical or curvilinear sides and flared or upright rims. They are sometimes provided with loop-handles attached either vertically or horizontally or with knob handles. The bowls are deep,round or flat based vessels which were sometimes provided with knob handles attached at the rim. In rare cases, one meets with jars that have a ring base. The cups are flat based and flared.

In the later stages of the period, the incisions became very deep, and[1] consisted at the outset of broken horizontal lines; horizontal, vertical or oblique incised bands and sometimes a combination of the three completed the process of surface decoration. In addition there is a combination of straight and wavy horizontal bands, incised pellet decoration and broken vertical lines. The handles include large knob handles attached at the rim, round loop-handles attached vertically half way up the neck and on the shoulder, or loop-handles attached

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[1] Perhaps as one of my students has suggested in a thesis on this subject this was inspired by the impressions of the burnt straw binder.

vertically just above the shoulder.

On the score of the development of the ceramic industry the Neolithic Age may be roughly divided into three phases, Early, Middle and Late.

During the Early Neolithic Age pottery was unknown, hence it is sometimes called the Pre-pottery Neolithic Age. It lasted roughly about 1000 years, from about 6000 to 5000 B.C. During the Middle Neolithic Age, pottery was invented, but the pots were crude and in the early stages of the period, the clay vessels were unfired, but later, although the pots were fired and although they were made of thin ware, they were devoid of decoration. This period roughly falls in the early centuries of the Fifth Millennium B.C. The Late Neolithic Age witnessed great advances in forms and decoration; starting with light incisions made with shells or finger nails which gave the pots a rippled surface, it eventually culminated in deep incisions forming various geometric patterns which have been described in the foregoing paragraphs. This phase was extremely long and Carbon 14 determination gave 4750 B.C.± for its beginning, but it continued down to the end of the Fifth Millennium B.C.

A primitive industry made its appearance during the Neolithic Age. In addition to pottery and agriculture the Neolithic Age practised weaving wickerwork and sewing. Although they left no remains of these handicrafts because of their perishable organic nature, yet in many cases both wickerwork and textiles have left their impression on the soil in which they were left.

Clay proved to be happy medium for the Neolithic dwellers of Palestine.

and they gave vent to their artistic talents in experimenting with it. Mud figurines of steatopygic females, perhaps representations of the goddess of fertility, were found at Jericho side by side with other representations in limestone. The figurines are crude and clumsy, but not devoid of interest. Their discovery, coupled with the care with which they treated their dead, indicates some sort of belief in the hereafter and the rise of rudimentary religious concepts. The Neolithic inhabitants of Palestine buried their dead in cradle graves, made of an upright row of stones set on a circular or elliptical plan. The body was laid in its flexed position, with the knee pressed against the chin. The dead were also buried sometimes in pits under the floors of the houses; the floors had to be broken for the purpose; later the pit was covered up and the floor repaired. In some cases, a new floor was relaid at a slightly higher level over the old one. Examples of this type of burial were discovered at Jericho. The reasons which impelled them to do this were two-fold: First the digging implements at their disposal precluded the possibility of digging pits sufficiently deep to protect their dead from being devoured by wild beasts, especially hyenas, and secondly out of sentimental regard to their departed relatives, as they did not wish to be separated from their lost dear ones. In this practice, perhaps, we see the rudiments of ancestral worship.

The Neolithic Age in Palestine can best be studied at Jericho. Immediately above the Natufian remains at Jericho Miss Kenyon discovered the remains of a Proto-Neolithic settlement where a series of floors of huts built of flimsy perishable materials were discovered. The bone and flint implements associated

with these floors bear close affinity to the Natufian industry. Above this there were four distinct Neolithic levels. In the eariiest, called Pre-pottery Neolithic A by the excavator the houses were built with hand moulded plano convex bricks on a round or curvilinear plan and extended over an area of ten acres. The village was fortified by a stone-wall about 2 m. in thickness strengthened at one point by a massive round tower. The flint implements of this phase of the Neolithic Age is Tahunian and consisted of polished axe-heads, hoes, tanged spear-heads, arrow-heads and points. Above this level, Miss Kenyon discovered a later settlement which she called Pre-pottery Neolithic B. The new-comers built houses on a rectangular plan with cigar-like bricks which were dented on the surface for the purpose of keying. The floors were paved with polished lime-stone plaster like those at Byblos. The new-comers used limestone bowls and presumably animal skins. Their tools consisted of flint knives and blades some with a serrated edge for use in sickles and tanged arrow-heads, but they had no hoes, axes or adzes. They made clay figurines of the goddess of fertility and others of animals which no doubt had a cultic significance. Evidence of ancestor worship may be deduced from the discovery of nine human skulls which were covered with plaster delineating the features of the deceased, the eyes being replaced by shells. In addition there were plaster statues of family groups, painted to delineate the features. One head was extremely well preserved.

Late in the Pre-pottery Neolithic B a defensive wall was built around the settlement but it was not as imposing as the fortification of the earlier phase.

After the destruction of Jericho of Pre-pottery Neolithic B, a new folk settled on the site bringing pottery with them. The pottery Neolithic Age of Jericho, like the preceding period, may be divided into two phases, Pottery Neolithic A and Pottery Neolithic B. The Pottery Neolithic A folk dwelt in pits excavated in the debris of the earlier settlements. Their pottery contained a large number of grits and a considerable amount of straw. Some of their vessels were made of coarse clay, while others are made of finer clay which has a cream slip and sometimes it is painted in red with geometrical patterns, mostly chevrons and triangles.

The Pottery Neolithic B folk who succeeded the Pottery Neolithic A, dwelt in huts. They decorated their pottery with incisions in a chevron pattern. On the whole their pottery is superior to that of their predecessors; the ware is thinner and the firing is better. Their houses were built of bricks over a stone foundation.

B. The Chalcolithic Age

The Chalcolithic culture of Palestine was brought in by new folk who had formerly been living in tents made of animal skins and who developed their civilization out of the fusion of their own culture with that which they found in the country which came to be their new home. The Chalcolithic Period in Palestine is not however characterized so much by the appearance of copper as by the introduction of new architectural methods and by the development of the

ceramic industry, such as the introduction of new techniques in manufacture, the appearance of new and more varied forms and the variety of methods of artistic decoration. The period is divisible, on the grounds of the development of its ceramic industry into three phases: Early Chalcolithic which more or less corresponds with the Halafian and Ubeidian phases in Mesopotamia and Early Amratian in Egypt; Middle Chalcolithic which is roughly contemporary with the Urukian in Mesopotamia and the Late Amratian and Early Gerzean in Egypt, and the Late Chalcolithic which is represented by the Jamdat Nasr phase in Mesopotamia and the Late Gerzean or Semanian phase in Egypt. It is impossible and premature yet, in spite of Carbon 14 tests to pin these phases down to accurate dates, but roughly speaking the Early Chalcolithic covers about 300 years from 4000-3700 B.C., the Middle from 3700-3400 B.C. and the Late Chalcolithic from 3400-3100 B.C.

In Palestine, a large number of vessels have been retrieved from the various sites that have been excavated so far, but notably from the excavations of sites in Wady Ghazzeh, Jericho VIII, Hedera, Beersheba area and Tell el Far'ah.

The Early Chalcolithic is best represented in the sites in Wady Ghazzeh and in Jericho VIII. Vessels in the forms of birds and cornets were discovered at Wady Ghazzeh in association with flint fan-scrapers and hoes and numerous arrow-heads were discovered at Jericho. The suggestion was made that the settlements in Wady Ghazzeh were camping sites inhabited by nomads who practised seasonal agriculture and moved off after the harvest, a phenomenon which was still

in vogue in the Beersheba area until relatively recent times.

The Middle Chalcolithic is best represented at Tuleilat el Ghassul on the east bank of the Jordan. The Ghassulians dwelt in well constructed houses built of bricks over a substructure of field stones (pierres de ramassage). An interesting feature of some of these houses are the painted frescoes on the walls in polychrome. The pottery bears close similarity to some of the sites of Wady Ghazzeh and contains among other types cornets with cord-eye handles and vessels in the form of birds. The flint arrow-heads at Tuleilat el Ghassul are poorer in quality and far less numerous than those discovered on the Wady Ghazzeh sites. Although the Ghassulians buried their dead in cist graves, Father North discovered a number of jar-burials similar to those discovered at Byblos when he re-opened the excavations sometime after the Second World War.

The third phase of the Chalcolithic Age may best be seen at Tell Abu Matar, south of Beersheba and at Hedera. The Matarians lived in rock cut caves at the outset, but later they dwelt in unpretentious houses. One curious thing about them is that they produced copper implements and tools such as mace-heads, pins and rings in very small quantities. Another site belonging to the same phase was discovered by Sukenik at Hedera in the plain of Sharon. He discovered models of houses made of clay and painted. It has been suggested that these houses are actually ossuaries, but the excavator found no bones in them. In addition, the lowest levels at Beth-Shan and Megiddo consisted of Chalcolithic settlements. At Beth-Shan bowls of grey burnished ware decorated with knobs

around the rim were discovered. The houses were built on an apsidal plan. Similar houses were discovered in Jericho VI-VII. Grey-burnished vessels were discovered by De Vaux at Tell el Far'ah. Some vessels associated with this grey-burnished ware consist of bowls standing on pedestals pierced with triangular openings. Jugs associated with this group are characterized by round bases, wide necks and ear-handles rising above the lip.

Chapter IV

THE URBANIZATION OF PALESTINE

A. The Early Bronze Age

The Early Bronze Age may be rightly called the era of urbanization; although a pre-pottery Neolithic town, going back to at least 6500 B.C. and provided with strong defensive walls and towers has been discovered at Jericho in recent years, yet its discovery must be considered unique, as it has not been repeated elsewhere. Certainly there is no evidence as yet of any walled town at Megiddo, Beisan or Hazor either in the Neolithic or the Chalcolithic levels. But with the shift into the Early Bronze Age, or Copper Age as some archaeologists prefer to call it, a large number of cities, fortified with formidable walls, rose up over the ruins of the Neolithic and Chalcolithic villages of Palestine and ushered urban life into the history of the country.

The Bronze Age of Palestine, together with that of most of her neighbours in the Near East, has been divided on cultural and archaeological grounds into three main phases, the Early Bronze Age, the Middle Bronze Age and the Late Bronze Age.[1] Each of these main phases is further divided into lower sub-phases on technical grounds and industrial development and will be treated separately in due course. It is appropriate at this stage, however, to stress that the term Early Bronze Age is a misnomer, as bronze was unknown during the period and whatever tools and weapons were produced during the period were made of simple

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[1] There is a strong tendency among a section of archaeologists to use a different classification. See p. 20.

copper or a natural alloy; the alloy did not come into general use until the Middle Bronze Age. Yet the term has persisted through long usage in spite of the serious objections of some archaeologists. As a matter of fact, one of the dividing lines between the Early and Middle phases of the Bronze Age is the replacement of the simple metal by the alloy in Phoenicia, Syria and Palestine during the Middle Bronze Age; in other words by the substitution of bronze for copper in the latter period.

The so-called Early Bronze Age had a long span of approximately seven hundred years and roughly covers the Third Millennium; but some archaeologists noted for their meticulous precision would prefer to place the beginning in the Thirty Second Century and the end in the Twenty First Century B.C.

The Middle Bronze Age followed with a lease of life of about half the length of the previous period; it lasted roughly from about 1900 to 1600 B.C. although some archaeologists prefer to give it a longer span by extending it to 1550 or even 1500 B.C. Between the Early and Middle Bronze Ages there is an intermediate period of about 400 years which cannot be included either in one or the other of these main divisions. The long interim period is a period of unrest and insecurity on account of the incursions and trepidation of nomadic tribes who came from the desert and introduced a culture sharply distinguished from the two periods in question.[1] The Late Bronze Age continues down to the end of the Thirteenth or middle of the Twelfth Century B.C. These divisions were indicated

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1 See p. 75.

by the cultural development of the country, principally by the progress and variations of its ceramic industry. It has also been demonstrated that this development was closely linked with the chief historical events of the past, such as the impact of mass movements of peoples, foreign invasions, or great inventions.

Before we proceed further with our discussion of the cultural heritage and archaeology of Palestine, it is necessary at this stage to stress the great role played by the ceramic industry of the country and the importance of the development of ceramic art in the study of archaeology generally. Little heed was paid to pottery, by the archaeologists of the early Nineteenth Century of our era; emphasis was laid more on important works of art such as sculpture in stone and marble, glass, figurines and weapons in bronze or copper and jewelry. But as stated previously, Petrie realized the importance of pottery and archaeology gained tremendously from his discovery.

Broadly speaking, the importance of the ceramic industry may be summarized under four principal heads: First of all is the fact that pottery, as we have seen, was invented by man at a very early date and has continued in use ever since. It thus had a long span of life, longer than any other one of the artefacts produced by man apart from flint implements. We have seen, while discussing the Neolithic Age, how pottery must have been invented somewhere around 5000 B.C. or perhaps a few centuries earlier and we shall see, as we proceed, that the methods of manufacture, the forms produced and the various types of decoration used varied with every age, from period to period and sometimes even

from generation to generation. Thus the ceramic industry, if properly studied, can be used as a yard stick or criterion for dating historical levels over a long span of nearly 7000 years. The second factor which contributed to the importance of the industry is the common use of pottery vessels through the ages. Clay was always available and does not cost much to quarry. Whereas metal objects involved laborious and costly processes in their manufacture such as extracting the ore, smelting it and then fashioning the vessels or the objects desired while red hot; all one had to do to make pottery vessels was to mould a clay paste, turn the vessel either by hand or on the wheel, dry it in the sun and finally fire it. Its manufacture and purchase lay within the means of all classes, whereas only the well-to-do could afford the rarer metal vessels. Hence pottery is discovered in far greater quantities and it is safer for the scholar to draw general conclusions from its development rather than from that of rarer objects and artefacts in metal, glass or stone. Thirdly pottery is more durable and once it had been adequately fired it persistently retains its form; on the other hand metal vessels tend to oxidize and disintegrate in process of time, sometimes leaving nothing but green or red powder to show that they had ever existed. Forms of metal vessels in silver or in copper of the Early Bronze Age are very difficult to preserve because of the reaction of the vessels to humidity and changes of weather. Pottery vessels on the other hand, however badly damaged and broken, can be re-assembled back to their original form, even if some pieces are missing. It is also possible to recognize the complete form of any particular vessel, when one comes across some

elements of its important features such as rims, handles or bases; from a mere handle one can sometimes restore, on paper at least, the complete vessel to which it belonged.

Furthermore painting on pottery, especially if executed before firing, has a persistent way of surviving in spite of all the vicissitudes to which pottery fragments may have been subjected later. As each period has its peculiar types of decoration, it is possible to establish the date of any odd sherd still showing part of the original decoration on it. Finally, pottery can be used as an index or a criterion of the artistic taste and aesthetic sense of the people who made it. People with natural or acquired good taste generally produce graceful forms and use the ceramic industry as a medium of expressing their artistic talents, while people lacking in good taste, and deficient in artistic sense produce hideous forms. This is of great importance as it sometimes helps to trace the original home of the new folk who arrived in Palestine and made their impact on the already flourishing civilization of the country, as for example, whether they came from the uncivilized Syrian Desert or from a country with a rich civilization and cultural heritage.

At present there are four ways by which pottery can be used as a criterion for dating. First of all comes the ware or the type of clay of which the vessel is made, such as composition, colour, texture, method of turning, firing and decoration. Every one of these elements helps to place the vessel in its proper chronological order; the colour is very important especially in the

early periods; a pot may be dark or light grey, brown, red, buff, cream or even white in colour. The ingredients of each vessel also have a story to tell; in the early periods some kind of temper (degraissant) was used in order to help bind the clay together and the type of temper varied from age to age; it may be straw for example as in the Early Neolithic Period, or large white flint grits as in the Chalcolithic, or quartzite grits in varying quantities and various sizes as in the Bronze Age, or limestone grits as in most phases of the Iron Age. The method and extent of firing also varies considerably in each age; in some periods pots were underfired, in others they were well fired; on the other hand in some periods they may be evenly fired, while in others the kiln in which the pots were fired may be heated quickly and cause uneven firing between the surface of the pot and the core. Again in some periods as in the Neolithic, the Chalcolithic and the Early Iron even, the pots may have been handmade, while in others they were turned on the wheel. In some periods the pots were slipped, or in other words they were dipped in a finely levigated clay solution of the same consistency and of the same heat coefficient as the pot itself before firing; or it may receive a wash or be dipped in such a solution after firing. A pot may be burnished or polished with river pebbles to a high lustre, or it may be wet smoothed or left plain. A pot may be decorated with various incisions or it may be painted in monochrome or polychrome, or it may be simply left plain. All these various characteristics have been of great help in classifying pottery and using it as criteria for dating.

The next important characteristic is the form of the vessel. In some periods certain peculiar forms predominate over others and the date of the pot can generally be ascertained by this. Under this heading, we do not only include the form of the body, which may be spherical, piriform, elliptical, oval, elongated or depressed, but also the type of handle and its position on the pot, the type of rim and the type of base. There are many varieties of handles and, while some, like the loop-handle, can be common to all periods, the manner of its attachment and the place of its attachment differ and are all important. A loop-handle may be vertical or horizontal; it may be placed, if vertical, on the middle of the body, or on the shoulder, or on the rim and the shoulder, or from half way up the neck to the shoulder. In addition to loop-handles there are no less than four other types of handles peculiar to certain periods, namely ledge-handles, cord-eye handles, ear-handles and lug-handles. Bases may be flat, rounded or pointed, while on the other hand some pots may be provided with high stump bases, disk bases, button bases or ring bases. Rims may be flared or upright; they may be everted or inverted, rolled, flanged or plain. All the possible variations in these elements have proved to be important data in dating pottery. On the strength of the varieties of ledge handles alone, Petrie as we have seen was able to establish a system of sequence dating for Egyptian pottery from the Amratian Period (SD. 30)[1] in Egypt down to about 2000 B.C. (SD. 80) when ledge-handles went out of use.

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[1] See p. 4.

The third main criterion for dating pots is their location in a stratified mound. This is very important as it gives the relative chronology of all vessels or fragments of vessels found while excavating historical mounds. A vessel discovered in the upper occupation levels of a mound is naturally later in date than a pot found in the lower occupation levels. Petrie's scheme for a relative chronology for Palestinian pottery, described earlier in this narrative has not been improved upon, except in the case of those occupation levels which were not present at Tell el Hesi, or in other words during the period when that particular site was abandoned. These levels however found their relative place in his scheme, as they were supplied by other sites. The sum total of the results of the hundreds of sites excavated in Palestine, Phoenicia and Syria enabled later archaeologists to devise a more accurate scheme of chronology for all the pottery of Palestine. The archaeologist who worked most on this scheme for Palestine is Albright, to whom in a large measure we owe the present fine but not final chronological scheme for dating the pottery of the Near East in general and Palestinian pottery in particular. Dunand on the other hand, became, by virtue of his long experience at Byblos, the great expert on Phoenician pottery. He established, through his methodical and systematic excavation of that site, just as fine a chronological scheme for Phoenicia. This scheme varies in some details, especially in its early phases, from the scheme adopted for Palestine. Miss Kenyon, in recent years, has elaborated Albright's scheme still further and classified pottery more precisely.

Finally, the fourth criterion used for dating pottery, a criterion which has helped to convert Petrie's relative patterns of chronology to a scheme of absolute chronology is the context of the various pottery forms in relation to dateable objects such as scarabs, cylinder seals, inscribed tablets, imported wares of known dates and, in the later periods, coins.

These four tests have been applied ever since 1880 in the Near East generally, and in Palestine as from 1890 when Petrie came out to launch his first field campaign at Tell el Hesi.

On the basis of these four criteria the characteristics of the pots of each period have been carefully noted, and a sound chronological scheme has been definitely established. As a result, the pottery of the Early Bronze Age has been classified into three more or less clearly defined sub-phases, each corresponding to one or other of the main historical events of the past.[1]

The three sub-phases of the Early Bronze or Copper Age have been roughly divided as follows:

Phase (i) c. 3000-2800 B.C.

Phase (ii) c. 2800-2600 B.C.

Phase (iii) c. 2600-2300 B.C.

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[1] Miss Kenyon has established that what the Albright school takes to be Phase (iv) of the Early Bronze Age and Phase (i) of the Middle Bronze Age are in actual fact an interim period between the Copper (at present called Early Bronze Age) and the Middle Bronze Ages. See p. 75.

B. The Ceramic Industry of the Age

The chief characteristics of the ceramic industry of the first phase of this age may be summarized as follows: The pottery is entirely handmade or turned on a slow moving wheel; the firing is even and of medium intensity; it contains a certain amount of fine quartzite and flint grits. The pots of the period are sometimes painted either with vertical bands or with diagonal criss-cross lines in red which form a diamond pattern. The most characteristic forms are the following:

a) Jars. These generally have flat bases, tall elliptical or ovoid bodies, which slightly bulge out below the shoulders; the shoulders are rounded, the neck is short and wide, and the rims are everted and flared; the jars are generally provided with two wavy ledge-handles placed horizontally about the middle of the body. Some jars are decorated with an incised band at the base of the neck, a relic of Chalcolithic days. The jars are usually made of buff ware tempered with fine quartzite and haematite grits.

b) Jugs. The jugs of this phase are rather tall and slender and stand on a thin flat base; the body is elliptical and bulges out to about three times the diameter of the base a short distance below the shoulders which are rounded; the neck is long and slender; usually the rim flares out into a funnel-shape; the vessel has a loop-handle attached from the rim to the shoulder or from half-way up the neck to the shoulder. The ware and the treatment of the surface resemble those of the large jars.

c) Juglets or Drinking Mugs. This type of vessel generally has a flat base of medium diameter, a piriform body, a short wide neck and a handle attached from the rim to the shoulder. They are usually made of drab or red gritty ware and are neither slipped nor burnished. Sometimes they are provided with handles decorated on the top with a knob.

d) Dippers. The dippers resemble the large jugs described under (b) above, but differ in some respects. They have a very small flat base, so small that the vessel cannot stand upright without some support; the body is piriform, but considerably elongated; the neck is relatively wide and of medium height; the handle is attached from the rim to the shoulder. This type of vessel is generally made in various sizes of red or drab ware, which contains numerous flint, quartzite and haematite grits. Generally they are not slipped or burnished.

e) Bowls. The bowls of this period are not flared and stand on round or flat bases. They are generally made of gritty red ware, and very often they are slipped. The rim may be slightly inverted at times and at others upright.

f) Saucers. The saucers are generally hemispherical in shape, and stand on a round base; on the outside they are usually horizontally combed and on the inside they are sometimes painted in red with a criss-cross pattern. The ware is often red but buff ware was sometimes used in which case the pot was slipped.

g) Small Jars or Unguentaria. These are miniature jars, with a round base, rough globular body, narrow neck and two cord-eye handles. They are often

painted with a diamond pattern in red.

The seven types described above represent the commoner forms of the period. In addition there are many other forms which although different in many ways, show a basic similarity to the types described. For example type (g) may occur in twin form.

Burnishing is not common in Palestine during the first phase of the Early Bronze Age.

The second phase of the Early Bronze Age however, not only in Palestine, but in Phoenicia as well, was brought under Egyptian influence, which helped to draw their cultures closer, especially as manifested in their ceramic industry.

The vessels made in the previous phases persisted but new methods of surface treatment were introduced such as horizontal combing and vertical burnishing over a red slip.

The third phase of the Copper Age corresponds roughly with the Fifth and Sixth Dynasties in Egypt (c. 2500-2300 B.C.) and the Third Early Dynastic and Akkadian Dynasty in Mesopotamia. It witnessed the introduction into Palestine of a new type of ware, which clearly distinguishes this period from its predecessor. The ware is now called "Khirbat el Karak Ware" after the site on the Sea of Galilee where it was first discovered in large quantities. It consists of a soft clay with a thick hard crust on the outside, which was burnished to a high lustre. The surface is decorated with embossed oblique and wavy bands, curves, spirals and other geometrical designs, some of them impressed with

fingers. The colour of the slip is either black or red or a combination of the two. The forms are very graceful and include deep bowls, cups, small jars and spheroid jugs.

Among the vessels introduced during this period mention may be made of the ovoid juglets with a pointed base, a flared rim and an almost straight handle from the rim to the shoulders, jugs with a high stump base, globular body and elliptical loop-handles, bowls with a round base, either flared or with an inverted rim.

What used to be called Phase (iv) of the Early Bronze Age and Phase (i) of the Middle Bronze Age have now been proved by Miss Kenyon to be a long intermediate period between the Early Bronze Age and the Middle Bronze Age. It witnessed the introduction of a culture quite alien to the Early Bronze Age which preceded it, and absolutely different from the Middle Bronze Age which succeeded it. Like the corresponding periods in Egypt and Mesopotamia this was a period of unrest and insecurity, a period of incursions of nomadic tribes from the east who destroyed the civilization of the Early Bronze Age and had little to offer in its place. It was followed at a later date by a wave from the north. In Egypt the period is represented by the anarchy which prevailed from the Seventh to the Eleventh Dynasties; in Mesopotamia the period witnessed the invasion of the Guti, and the disruption attending it. In Palestine, Syria and Phoenicia it saw the large scale penetration of the Amorites. Miss Kenyon, on

the analogy of the classification adopted in Egypt prefers to call the period[1] "The Intermediate Early Bronze-Middle Bronze Period". This term may be found cumbersome and the present writer has taken the liberty to suggest an entirely new classification for the Third and Second Millennia, in keeping with Miss Kenyon's deductions and conforming more to the actual state of affairs in the Near East during the Third and Second Millennia.

In Egypt the period of anarchy embracing the Seventh to Eleventh Dynasties is known as "The First Intermediate Period". As the four centuries in question correspond in time and reflect the general state of insecurity, unrest and decline in civilization in the neighbouring countries of Palestine, Syria and Phoenicia, it would be more appropriate to call it "The Intermediate Period" pure and simple and dispense with the rest of the term as suggested by Miss Kenyon.

The present writer, would like to see a new system of classification adopted on the following broad lines:[2]

Early Bronze I or Copper Age I	3000-2800 B.C.
Early Bronze II or Copper Age II	2800-2600 B.C.
Early Bronze III or Copper Age III	2600-2300 B.C.

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[1] In Egypt the period of anarchy embracing the Seventh to Eleventh Dynasties is known as "The First Intermediate Period".

[2] In a previous suggestion published in the Middle East Forum, Vol. XXXIII, No. 6, June 1958, the writer suggested the term "Early Bronze Age I and II", for the Intermediate, but realizing what confusion that would bring about, the present writer has selected the less confusing, if somewhat less appropriate appellation, Intermediate Age. The period represents "an end and a beginning".

Intermediate Age	2300-1900 B.C.
Middle Bronze Age I	1900-1850 B.C.
Middle Bronze Age IIA	1850-1750 B.C.
Middle Bronze Age IIB	1750-1600 B.C.
Late Bronze I	1600-1400 B.C.
Late Bronze II	1400-1200 B.C.

C. The Architecture of the Age

As indicated in the foregoing pages, the Early Bronze Age I witnessed the urbanization of Palestine. Most of the previously existing villages were converted into cities by extending their area and by the construction of defensive walls around them, protected with strong towers at intervals. In the first two phases of the age (c. 3000-2600 B.C.), the usual method of constructing city walls in the Near East generally, but in Palestine in particular, followed a more or less stereotyped pattern. A stone foundation about 2.50 m. thick was laid in a fairly deep trench and an upright wall of the same thickness was built over it of sun-dried bricks. Two battered walls of sun-dried bricks were built against this wall on both sides. The walls were sometimes fortified by massive towers and a fosse as at Jericho.

In practically all cities in Palestine, there was a palace and at least one temple.

A temple was discovered at Ai by Mme Marquet. It consisted of a

rectangular structure with a door pierced in one of the long sides. The walls were constructed of small hammer-dressed masonry the size of bricks. The large stones discovered in a row along the wide axis of the building indicate supports for wooden posts which carried the timber roof. Similar temples, including a high place were discovered at Megiddo.

Private houses were constructed more or less in the same manner as the rooms in the palace and temples, but naturally they were considerably smaller in size. Construction methods underwent important changes and developments throughout the seven centuries of the Early Bronze Age. Large blocks of quarried sandstone were used, set horizontally. During the second phase, limestone blocks were used set horizontally in an irregular fashion, followed in the last phase by well squared stones set in regular parallel courses. The foundations of the later phase of the Early Bronze Age consisted of large blocks of masonry about sixty centimeters in length, forty to fifty in height, and thirty to forty in depth, laid in two parallel rows, with rubble filling between them.

The lower courses of the walls of the Early Bronze Age were built of stone and the superstructure was finished with sun-dried bricks. The masonry during the later phases of the age was cut into blocks roughly squared at the corners. The stones were set in mortar made of lime or gypsum and sand. The mud brick walls of the upper courses were set in clay mortar and plastered. The floors were either coated with a thick layer of clay plaster, or in very few cases, a flagstone floor of the "crazy" type was used.

It will be clear from the foregoing paragraphs that timber played a very important role in the construction of houses at the dawn of civilization. It was used in place of the stone columns and piers of later days, it was used in roofing, sometimes exclusively, it was used in building stairs and as lintels over doors and windows.

During the third phase of the age (2600-2300 B.C.) city-walls were built entirely of stone boulders, except perhaps for the upper courses which were continued in sun-dried bricks. The city-walls were either battered on the outside or provided with a glacis on the inside, as at Khirbat al Kerak; the walls were constructed upright and provided with buttresses at short intervals. The masonry used was polygonally cut and small chippings were inserted between the boulders. The whole face, both inside and outside,was plastered with mud and beaten hard.

The houses were constructed in single storeys. The foundations and lower courses were built of stone, but the upper courses were finished in sun-dried bricks. An average house consisted of two rooms opening on to a small enclosed open court. The rooms were constructed of squared hammer dressed stones to the required height; along the edges of the room and the middle axis, poles were set up, resting over stone bases, which supported two purlins and a ridge pole respectively; rafters were then dropped from the ridge pole which rested on the purlins, on to the side walls, reeds were tied horizontally over the rafters, and then a thick coat of mud was spread over the whole.

All buildings were constructed in this manner including royal palaces

and temples. The temples were generally set within a large open enclosure, as the general body of worshippers were not allowed inside the cella or holy of holies; access to that part was reserved for priests only. Palaces consisted of a large square building divided into a number of small rooms; the audience chamber can generally be recognized by its larger size.

D. The Arts and Crafts of the Age

By about 3000 B.C. copper was smelted in slightly greater quantities. More copper weapons and tools especially daggers and axe-heads were made of that metal. It is true though that some stone implements such as knives, sickle blades, spear-heads and perhaps even arrow-heads continued in use for a long time afterwards, and were only replaced by bronze types at the beginning of the Middle Bronze Age or even later. Indeed flint sickle-blades continued to be used for harvesting the crops down to the Iron Age and the Israelites used flint knives down to relatively recent times in circumcizing their children.

There is little to distinguish between the tools and weapons of the Early Bronze Age and those of the succeeding phases of the age except for the fact that they were made of copper. The axe-heads were more or less rectangular in shape, tapering slightly towards one end. Battle axe-heads were crescent-shaped with a protuberance in the middle of the crescent for attaching to the handle. Daggers were shaped like laurel leaves with a pronounced midrib. These were the only weapons made of metal and the Palestinians of the Early Bronze Age continued

to use flint implements throughout the period.

The small art of the Early Bronze was inspired principally by religious beliefs and thus the small works of art that have been discovered have given an insight into the beliefs of the age. The earliest figurines produced were made of terra cotta, but towards the end of the period, figurines in copper were also produced. The earliest terra cotta figurines are representations of the goddess of fertility. Although they are a great improvement on the grotesque and crude figurines of the Neolithic Period, yet they are still primitive, and show a lack of detailed observation. The fertility deity was represented with an owl-like face, only the eyes and the nose being carefully delineated, wearing a headdress which appears to have been made of feathers; the neck is faithfully rendered and an attempt was made at representing the necklace which the goddesses wore by a curvilinear row of incised holes. The arms are generally placed on the flat chest and the rest of the figurine was completed with a terra cotta cylinder; no attempt was made at carving the breasts or the legs. So far as the present writer is aware, no figurines exist of the male consort of the fertility goddess in terra cotta.

The first attempts at reproducing the fertility goddess in copper were very naive and appear very late in the period not earlier than phase 3. The deity is generally represented wearing a high headdress, but the eyes, ears and nose are faithfully reproduced. The breasts are very small and the rest of the body is completed with a thin plaque of metal. Late in the period attempts were made at better reproductions but with an entire lack of consideration to anatomic details.

For example in a copper figurine of the goddess the trunk was completely ignored and the figurine consisted of a head, a pair of arms stretched down and a pair of thin legs, protruding from about the same place as the arms. As the artist wanted to add the breasts, he placed them on the thighs, there being no other place for them, as the figurine was trunkless.

The glyptic art of the age in Palestine is very primitive. Some seals scratched with crude designs have been found in various places, but Babylonian cylinder seals of the Early Dynastic Period and some seals of the Second to Sixth Dynasties of Egypt were found in small numbers. Cappadocian seals of the end of the Third Millennium, incised with primitive geometrical designs have turned up at Megiddo and elsewhere.

In jewellery, spherical carnelian beads, biconical limestone beads and cylindrical agate beads have been discovered in small numbers. They were probably imported from Egypt or Babylonia.

Chapter V

PALESTINE IN THE THROES OF A GREAT TRIAL

The Invasion of the Amorites

The last quarter of the Third Millennium B.C. witnessed a great upheaval in Palestine and the neighbouring countries which was brought about by the onslaught of Semitic tribes from Arabia and the Syrian Desert on the western horn of the Fertile Crescent. This onslaught was followed three centuries later by the arrival of Indo-European tribes from the north. Palestine, Phoenicia and Syria were thus subjected to the impact of two different cultures which in process of time manifested their influence on the area and helped to mould its future destiny and civilization.

Between 2300 B.C. and 2200 B.C. wave after wave of Amorite marauders threw themselves against Palestine, Syria and Phoenicia and later spread over the eastern horn of the Fertile Crescent into Mesopotamia. They made repeated thrusts and with each they came closer and closer to the coast until finally they brought the entire seaboard of the Mediterranean under their sway. Their first arrival coincided with the collapse of the Old Kingdom of Egypt and the prevalence of the anarchy and chaos of the First Intermediate Period with which that country was plagued. Indeed it was the weakness of Egypt which made possible the success of the new marauders, as that country also suffered considerably from their attacks across the desert barrier.

The Amorites spread fire and sword wherever they went, destroyed a

large number of flourishing cities of the Early Bronze Age, reduced a number of others considerably in size, devastated the countryside, decimated the population of the country and left havoc and anarchy in their wake. The headquarters of the Amorites seem to have been the cities along the banks of the Orontes, such as Hama and Homs, which were the focal points from which their widespread depredation started. Palestine suffered considerably from their attacks, perhaps more so than the neighbouring countries as may be seen in the deep layers of burning in all the sites which have been excavated so far when the level of the Amorites reached. They remained in a state of semi-nomadism for more than three centuries, although they practised agriculture. At Tell Beit Mirsim, there were no buildings of importance and no town walls were discovered in levels J, I and H, which belong to this period. Albright suggests that the site was sparsely populated but we venture to suggest that the inhabitants of the age lived in flimsy structures leaving no trace of their occupation except in the abundant pottery discovered on the site.

Similarly at Megiddo, although a large Amorite cemetery was discovered, no buildings on the mound could be attributed to the new-comers with certainty. Again at Tell el Ujul (Ajjul) a cemetery belonging to this phase was discovered, but no substantial remains were discovered on the site. But the effect of the Amorite invasion is best seen at Jericho, where a large cemetery was discovered, consisting of various types of tombs but no town-walls or substantial buildings were found. We thus have evidence from the cemeteries and the pottery on the

site of the arrival of semi-nomadic folk. Towards the end of the period unpretentious buildings were discovered at Jericho and Megiddo and this may be due to the influence of the newly arrived torque-wearers. The country remained in a state of chaos until the rise of the Twelfth Dynasty in Egypt which put an end to the anarchy in Egypt and created order out of the prevailing chaos. The arrival at the beginning of the Second Millennium B.C. of the torque-wearers from the north, who were probably Hurrians, or other folk strongly influenced by Hurrian culture, contributed in a large measure to the arrest of the havoc created by the Amorites and the creation of a new order.

The Early Bronze Age civilization of the Near East was thus brought to an abrupt end about the beginning of the Twenty Third Century B.C. by the invasion of the Amorites. The incursions of these tribes continued over a long period of time and no respite was allowed the area either to recuperate or to rehabilitate itself by the creation of a new order over the ruins of the old, on account of the frequency and the continuity of their depredation. Evidence from Byblos shows that two onslaughts were made on the city separated by about a century. The first onslaught was not successful but the second brought the city to submission.

Reference to the depredation of the Amorites in the Twentieth Century is contained in the Egyptian Execration Texts. These are short texts belonging to the Twelfth Dynasty inscribed on terra cotta figurines, heaping curses and imprecations on the nomadic marauders of Palestine. After being made the figurines were deliberately broken in the hope that the person whom they represented

may be similarly smashed. It shows that even at that late date, the Amorites were still a menace and continued in their depredation.

Yet the Amorites introduced a culture of their own, which though not of a high order, was not devoid of interest. The sharp distinction between the civilization of the Early Bronze Age and the culture of the new-comers points to the arrival of a new folk and there seems little doubt that they were the Amorites.

The arrival of the Amorites is best seen in the appearance of new pottery forms and techniques. Included in the repertoire of vessels made is an ovoid jar with a flat base and a flaring rim provided with envelope ledge-handles, which are turned over like the flap of an envelope hence the name. In addition there was a large assortment of bowls decorated with incised horizontal straight or wavy bands. The hall mark of Amorite pottery was a jug of crisp ware with a flat base, globular body, short wide neck, a small lug-handle and a pinched rim. There were also vases of various sizes with a flat base, ovoid body, wide neck, incised at the top of the shoulder. Albright calls them caliciform jars because of the similarity of their shape to the calyxes of flowers. The lamps introduced by the Amorites consist of saucers pinched in four corners. Their jugs have flat bases, squat bodies and wide low necks; the jugs are sometimes provided with a tubular spout and two lug-handles, one above the spout and the other on the opposite side. Not a single pot of the Amorite Period is burnished and this form of finish disappears during the age. A better class pot is the so-called "tea-pot" ware which has a flat base, a globular body and a rolled rim. It is

provided with a tubular spout and has a dark grey slip painted over with horizontal straight and wavy white bands. In the hinterland of Syria, principally at Hama, a large number of goblets was found. These have a flat base and are decorated with fine horizontal straight and wavy bands in brown. However the goblets are found only in small numbers in Palestine, as at Megiddo, and were probably imported from Syria. The rims of these vessels were made on a wheel while the rest of the body was made by hand.

The Amorites were without doubt semi-nomads as no structures have been discovered which can be attributed to them with certainty except towards the end of the Intermediate Age. However if the Amorites were not particular about the durability of the abode of the living they paid more attention to the resting place of their dead and most of our information about their culture comes from their cemeteries. Miss Kenyon, who made a careful study of the Amorite methods of burial, recognized five types of tombs at Jericho all of which contained single burials. Taking into account the amount of labour expended on each tomb it is surprizing that in not a single instance was the same tomb re-opened for a fresh burial. Miss Kenyon classifies these tombs under five headings, the Dagger type tomb, the Pottery-type tombs, the Dagger-and-Pottery-type tombs, the Out-size tombs and the Bead-type tombs. All consisted of chambers cut at the bottom of a deep shaft.

In the Dagger-type tomb, the burial took place in a small rock cut chamber. The dead were buried in a flexed position. If the deceased was a man,

a dagger was found near the body and if a woman, the dagger was generally replaced by a pin and beads. There was no other burial equipment.

The Pottery-type tombs generally contained a few pots, mostly caliciform vases, small jars with lug-handles and lamps but no daggers or any other equipment was found in this type of tomb. It consists of a shaft, at the bottom of which was the burial chamber both of which were cut in the rock.

The Dagger-and-Pottery-type tombs contained both daggers and pots; in a few cases javelins were also added. The tomb is slightly larger than the two other types described, and may belong to important members of the community.

The Out-size type tomb is generally much larger than the other tombs described, and the burial equipment is considerably richer, and includes large jars, caliciform vases and lamps, as well as some weapons. It is possible that because of the size of the tomb and the rich furniture discovered in it, that these tombs were intended for tribal chiefs.

The Bead-type were very small tombs, which contained beads or a pin.

Examples of these various types of tombs were discovered at Jericho, and slightly similar tombs were discovered at Tell el Ujul (Ajjul), Tell ed-Duweir and Megiddo. Miss Kenyon attributes the variations of the types of tombs to tribal organization and tribal customs with some justification.

Similarly in one of the cemeteries at Ujul (Ajjul) a dagger was included in the tomb furniture, sometimes with nothing else besides, while in the second

cemetery pottery deposits predominate. Perhaps we see here a recurrence of the practice at Jericho and a slight similarity between these two cemeteries and the Dagger-type-and-Pottery-type tombs at Jericho.

The Amorite cemetery at Tell ed-Duweir resembles the Pottery-type cemetery at Ujul.

At Megiddo Amorite burials were found in tombs that had been in use since the Early Bronze Age or earlier. In one of these there were typical Intermediate pots with envelope ledge-handles, copper pins, lance-heads and daggers, reminding one of the Dagger-and-Pottery-type tombs at Jericho. In another tomb group there was a deep well cut shaft with identical equipment.

In a large number of cases in most of the sites including Jericho, Tell el Ujul and Megiddo there is evidence that the bodies were deliberately dismembered.

Towards the end of the period, a few unpretentious structures were discovered at Jericho, Megiddo and Tell Beit Mirsim, but otherwise structures of the age are more conspicuous by their absence. Monumental buildings or town walls were unknown.

Reference has already been made to the copper daggers and javelins found in some Amorite tombs of the Intermediate Age. The commonest type of dagger consisted of a long blade riveted to a wooden handle with copper rivets. The javelin consisted of a rod, square or rhomboid in section with a sharp point at one end and a wire at the other which was wound round the handle.

Although the culture of the Amorites in Palestine is primitive and of a low order, the civilization of their focal point of departure seems to have been greatly superior. In his excavations at Hama, Ingholt discovered eight layers of occupation containing remains of substantial buildings and a superior ceramic industry where most of the pots were painted. A characteristic vessel is a bowl-on-stand which is shaped like a champagne glass. In addition there was a large number of exquisitely painted goblets and bowls, jugs with pinched rims which are painted with circles to represent the eyes, a large number of figurines of animals some carrying jars on their backs, figurines of a nude female, possibly the goddess of fertility, figurines of chariots, kneeling men carrying animals, probably intended for sacrifice, small deep bowls decorated with bucrania in relief and many others. Of special interest is a jar with a small flat base, ovoid body decorated with the figurines of four nude female figures between the rim and shoulder and two doves on the neck. Except for a painted goblet discovered in a tomb at Megiddo none of these have come to light in Palestine, which seems to have been a backwater of Amorite civilization and a hunting ground for loot.

At the end of the Twenty First or the beginning of the Twentieth Century B.C. a group of metallurgists arrived from the north. Schaeffer calls them "the torque-wearers" because of the silver or copper torques which they wore around their necks. Evidence of their arrival has been established at Ras Shamra and Byblos. Whether they settled in Palestine or not is uncertain, but their influence was certainly felt there. They introduced torques, the ends of

which were turned into small loops or eyes for inserting a ribbon and were worn around the neck, socketed lance-heads, tanged daggers, socketed and fenestrated axe-heads, toggle pins with expanded heads, spirals, biconical beads, bracelets and figurines all in bronze. Their arrival coincided with or slightly preceded the renaissance of Egypt under the Twelfth Dynasty. A century or so after their arrival the Intermediate Period came to an end and ushered in the Middle Bronze Age.

Hitherto the population of Palestine was a conglomerate of several strains including the Semitic; but it was the Amorites who gave the country its preponderating Semitic character.

Chapter VI

THE GOLDEN AGE

Palestine During the Middle Bronze Age

The renaissance of Egypt under the Twelfth Dynasty about 2000 B.C. put a stop to the depredation of the nomadic Amorites and created a new order. The arrival of "the torque-wearers" a short while earlier prepared the ground for a renewal of settled life as the new-comers were not nomads, but townsmen and farmers who had developed a sedentary life somewhere in the north. Indications point to the Hurrians, or to people who were driven away from their homes by the Hurrians for the identity of the new-comers. Miss Kenyon hints that they were the Canaanites. This may well be the case if we assume that the Canaanite folk were the result of a fusion between the Amorites and "the torque-wearers".

A complete break was made with the past and a new era unrelated with the earlier phases of Near Eastern civilization was ushered into world history. Trade relations were re-established with Egypt and certainly the Middle Bronze Age is the most prosperous and the most artistic age of Palestine. Most of the cities which were destroyed by the Amorites were rebuilt on a larger scale and came back to life with renewed vigour. In the ceramic industry, in metallurgy, in burial customs and in architecture new methods and techniques were introduced which were to last for over seven hundred years. Trade developed and flourished not only with Egypt, but also with Mesopotamia, Asia Minor and Crete and the influence of these countries was reflected in the culture and art of the country.

The pax Aegyptiaca was firmly established with the occupation of the country by Senusert II and Senusert III and lawlessness and disorder came to an end. The excavations of Beisan, Megiddo, Jericho, Tell el Ujul (Ajjul), Tell Beit Mirsim, Hazor, Shechem and other sites portray a picture of an industrious prosperous folk whose sole occupation was the pursuit of their lawful trades and crafts, the acquisition of wealth, the worship of their gods and the protection of their cities against their pugnacious neighbours. Apart from the campaigns of Senusert II and Senusert III, there were no foreign invasions, yet the archaeological record reveals a series of total and partial destructions which were due to petty wars between the independent city-states.

It is convenient to sub-divide the Middle Bronze Age into two main sub-phases on historical and cultural grounds. Middle Bronze Age I covers about fifty years to seventy five years roughly from 1925 to 1850 B.C. while Middle Bronze II spreads over the following two centuries and a half. These two phases of the period represent the era of the greatest prosperity of the country by virtue of the place Palestine held among the trading nations of the time. Middle Bronze Age II may be divided into three sub-phases. The first is contemporary with the Twelfth Dynasty, the second with the Thirteenth and Fourteenth Dynasties and the third with the period of the Hyksos domination of Egypt, Palestine, Syria and Phoenicia, and the penetration at least of some Indo-European elements within the periphery of the Fertile Crescent, people like the Kassites, Hittites and Mitannians. It is impossible to pin these three phases to actual dates, but

roughly speaking Phase IIa extended from about 1850 to 1780 B.C., Phase IIb from 1780 to 1730, the date of the arrival of the Hyksos and Phase IIc from about 1730 to about 1580 B.C., the date of the expulsion of the Hyksos from Egypt. On the ceramic score, Miss Kenyon divided the Middle Bronze II into five sub-phases, but the divisions contain many overlaps which become irrelevant if the divisions are restricted to the appearance of new pottery types and the disappearance of others; overlaps can be dispensed with. During the entire period, Palestine, together with Phoenicia and the hinterland of Syria, became the trade route and the martial highway of the great nations of the past. The former nomadic tribes enrolled as mercenaries first in the armies of the Egyptians and later with the Hyksos[1] and on their release returned home, laden with spoils and war-booty. The general prosperity is reflected in the architecture and art of the period, in the development of its ceramic industry, in the superior bronze weapons and tools produced at the time, in the luxurious funerary equipment, in the wealth of the jewellery and the great variety of its articles of ornament. Never had Palestine witnessed such prosperity and luxury as during the Middle Bronze Age.

It was during the Middle Bronze Age that the Patriarchs of the Old Testament, still in a nomadic state wandered over the country seeking pastures for their flocks, and trading with the independent city-states.

The Architecture of the Age.

City-walls of the Middle Bronze Age were generally built of large

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[1] The children of Jacob descended into Egypt probably as mercenaries of the Hurrian Hyksos.

polygonal stones, battered on the outside. Examples of these have been discovered at Jericho, Shechem, Tell Fara and Tell Beit Mirsim. The superstructure was finished with a brick upright wall. The walls were generally re-enforced with towers at frequent intervals, and provided with a gateway which was difficult of assault; entrance into the city was gained by means of a single gateway, which was protected by three or two pairs of massive piers which divided the gateway into one or two bays. Between each pair of piers a massive wooden door was put up, so that an attacking enemy would have to assault one door after the other and could only penetrate into the city, in the case of the two-bay gates, after the last of the three doors had been smashed. Examples of this type of gate have been discovered at Megiddo, Tell Beit Mirsim, Tell Fara and Shechem. At Tell Beit Mirsim on the other hand the walls were built of small stones in roughly laid courses and fortified with towers at intervals. The city-walls were very thick, in fact so thick that a small size house could be built over them. In addition some walls were protected with earth banks held in position by retaining walls and plastered. Examples of these were discovered at Jericho, Tell ed-Duweir and Hazor, besides other examples outside Palestine notably at Qatna (Mishrifeh) in Syria. It has been suggested that these additional banks were to impede the use of battering rams against the city-walls. Another suggestion, which is not universally accepted, is that they were intended to safeguard the walls from attacks by chariots.

In monumental architecture there was a definite advance over the pre-

vious period because of the superior bronze tools at the disposal of the masons. The stones were better squared and the face was dressed smooth. Examples of this type of architecture were discovered at Tell Beit Mirsim where a well preserved patrician palace was discovered belonging to the Seventeenth Century B.C. It consists of a large forecourt along one side of which there were two units, one consists of four rooms and the other of two; the two units do not communicate with each other. Other buildings of the same nature were discovered at Jericho, Megiddo, Shechem and Tell el Ujul. The palace at Shechem consists of a central court with long halls and rooms ranged along the four sides. The temples consisted of a cella with an altar set up against the back wall and a court in front of it.

The dead were buried in rock cut chambers mostly outside the city-walls. The tomb furniture is very rich and in most cases the wordly belongings were buried with the deceased and by contrast with the preceding age, we find many communal burials, notably at Tell Fara, Tell ed-Duweir and Jericho. At Jericho Miss Kenyon discovered intact family tombs, which, besides a large selection of pots, contained well preserved stools and tables in wood, rush mats, beds and even dehydrated meat. However, single burials are not unknown and they have been found at Tell el Ujul and Megiddo. In some cases the dead were buried under the houses.

The Pottery of the Age.

The ceramic industry of the Middle Bronze Age produced the most

graceful forms that have hitherto appeared in Palestine. The fast moving foot propelled wheel now came into almost general use and the greatest care was exercised in throwing their pots Use was made of grits, but they were so tiny that they are barely visible except in the large jars. The surface was carefully smoothed by burnishing and firing was even.

The forms produced in the period are very numerous. Some are similar to those commonly found in Phoenicia and Syria, but a few are peculiar to Palestine. It is not however the great variety of forms which makes the period notable as their special characteristics. No matter in what form or shape any particular vessel is made, it bore the unmistakeable stamp of the age. The inhabitants of Palestine at the time showed a marked predilection for the piriform or pear-shaped vessels. With very few exceptions practically all the vessels of the period took the general shape of a large pear. The flat-based jars and ledge-handles of the two preceding periods disappeared completely, with the exception of the cooking pot, which in this age continues to have a flat base.

The pottery of the Middle Bronze Age may be classified into two main groups which for convenience have been termed Middle Bronze Age I and Middle Bronze Age II. Pottery of the Middle Bronze I has an intense red slip which is highly burnished. It had a short lease of life which did not exceed fifty or at most seventy five years from 1925 B.C. to 1850 B.C. The repertoire of pots includes closed bowls with disk bases and in curving walls, open bowls with disk bases or

low ring bases and thickened rims, jugs with ring bases, piriform bodies, narrow necks, flared rims and double-or-treble-strand handles attached at the rim and shoulder, decanters with low ring bases, piriform bodies, narrow necks, everted rims and a doublestrand-loop-handle attached at the shoulder, dippers with a thin flat base, piriform body, spouted rim and a handle attached at the rim and the shoulder, juglets with small ring bases, piriform bodies, narrow necks, flared rims and double-strand or single-strand handles from the top of the neck just below the rim to the shoulder. Substantial numbers of these vessels were discovered at Megiddo, Ras al Ain, Tell Beit Mirsim and Tell el Ujul.

Middle Bronze Age II pottery may be subdivided into three sub-phases, namely Middle Bronze IIa, Middle Bronze IIb and Middle Bronze IIc.

In sub-Phase IIa, the general characteristics of the pots are the same as those of Middle Bronze I, but the slip is cream in colour instead of red and a large number of vessels are painted with horizontal bands in red and brown. Notable changes may be seen in the dippers which have pointed bases instead of small flat bases, as in the previous period. Also the curve of the closed bowls is not so rounded and the juglets have button bases instead of small ring bases as in the previous sub-phase.

Sub-Phase IIb comprises the Thirteenth and Fourteenth Dynasties and the early period of the Hyksos, when to a large extent, but not entirely, wet smoothing replaced burnishing and new forms appeared which were unknown previously. During this period most of the pots of the previous period continue in use, but

new forms appear such as the sharply carinated bowls, vases with trumpet or ogee-bases without any collars on the neck or above the base, piriform bodies, wide necks and everted rims, lamps made of bowls with a slightly pinched rim. Also in this period appears a piriform juglet, which has a black or dark grey slip and the surface is decorated in a pin point style with geometrical designs, mostly triangles. This is known as the Tell el Yehudieh ware after the first place where it was discovered in Egypt.

Besides these, the former common vessels such as dippers and bowls continue in use. During the third phase of the Middle Bronze Age II, new forms make their appearance including cylindrical jugs with a wide rounded flat base, a cylindrical body carinated at the shoulder, a narrow neck, a flared rim, and a double-strand or single-strand handle from the rim to the shoulder. Piriform juglets completely disappear, bowls with ogee-bases tend to become larger, and they are decorated with two collars, one at the neck and the other just above the base.

There are some pots which are common to all phases and sub-phases of the Middle Bronze Age. These include jars, vases, decanters, jugs and dippers.

The jars generally have a pointed or rather tapered round base, an elongated and distended piriform body, a short wide neck and a flared rim; they are provided with two more or less semi-elliptical loop-handles attached on opposite sides of the widest part of the body well below the shoulder; they are generally made of red or buff ware and contain a number of fine flint grits; a

self-same slip is added on the surface which is sometimes combed.

The vases have a round base, an ovoid body, a wide neck and an everted rim.

The decanters have a low ring base, a piriform body, a flaring neck and a collared rim which is sometimes inverted. They are provided with a double-strand handle attached over the shoulder. In Middle Bronze I they have a red slip which is highly burnished. In Middle Bronze II a they have a burnished cream slip and the body is sometimes painted with red and brown horizontal bands. In sub-Phases IIb they are plain and in sub-Phase IIc they are generally wet smoothed.

The jugs of the Middle Bronze Age have a low ring base, a piriform body, a flaring neck and a plain rim; they are provided with a handle which is attached from the rim to the shoulder. Again the jugs of the first phase have a burnished intense red slip, while jugs of Phase IIa have a cream slip which is sometimes painted in bichrome with horizontal bands. The jugs of the later phases are sometimes burnished or wet-smoothed.

The dippers of Middle Bronze Age IIa-c have a pointed base, a piriform body, a narrow neck, a flared rim which is pinched into an oval and an angular loop-handle attached at the rim and the shoulder. In sub-Phases IIa-b they are treated with a burnished cream slip and in sub-Phase IIc they are wet-smoothed.

<u>Other Remains of the Age</u>.

Besides the pottery vessels of the time many vessels were made of

bronze, silver and gold and it has been suggested that the carinated bowls were copied from metal proto-types. Although none of these have been found in Palestine, silver and gold carinated bowls have been found at Byblos.

The metal industry which received a fillip on the arrival of the torque wearers expanded further during the Middle Bronze Age. More weapons and tools were made of bronze and unlike the previous period none in copper. In practically every site excavated in Palestine, a large assortment of bronze metals and tools were discovered, as well as a small number of figurines.

The bronze weapons include daggers, axes, battle-axes and spear-heads. The daggers were made of tanged lanceolate blades with a pronounced midrib; they were riveted on to a wooden or ivory handle by means of small bronze nails at the bottom of the blade where holes varying from two to four were specially provided for the purpose. The axes have parallel sided heads with a hole in which to insert the handle. The battle axe-heads were made of a fenestrated semi-circular blade, socketed at one end for inserting the handle. Spear-or-lance-heads were also made of lanceolate blades socketed at one end for the lance.

The articles of ornament made in bronze during the Middle Bronze Age include toggle-pins with expanded heads. In Middle Bronze IIc toggle-pins with melon heads make their appearance. Spirals in bronze and silver were used as arm bands and hair curlers. A large number of silver spirals were discovered at Tell el Ujul. There were also scarabs mounted in gold, gold bracelets, pendants and toggle-pins.

From the Hyksos levels come a large number of scarabs. Some of these were imported from Egypt, but a large number of them was actually made in Palestine. They are mostly made of steatite.

The Palestinians of the Middle Bronze Age amused themselves with various games of skill. At Tell Beit Mirsim a stone gaming board was discovered, divided into a number of square and rectangular segments. Ten conical and pyramidal stones of various colours were found near it. How the game was played is uncertain, but at present the villages in Palestine play a game with six stones, three for each player on a board similar to the ancient board. The players have to get their three stones in a straight row. Whoever does that first wins.

The descendants of the Amorites who dwelt in Palestine took to trade after the pacification of the country. There is a painting in the Tombs at Bani Hassan which belongs to the beginning of the Nineteenth Century B.C., showing a caravan of Asiatics led by a certain Abisha bringing stibium (eye-paint) to Egypt laden on asses. Included in the freight carried are several belows indicating that the Abisha and his group were itinerant metallurgists as well as traders.

Chapter VII

PALESTINE UNDER EGYPTIAN SUZERAINTY

The Late Bronze Age

There is no break between the cultural traditions of the Middle Bronze and those of the Late Bronze Age. The changes in technology that took place are due to natural development rather than to the arrival of a new folk. In architecture, in ceramics, in metallurgy and in burial customs we note that the traditions inherited from the Middle Bronze Age continue into the Late Bronze Age. The inhabitants of Palestine were the same, but they were living under different conditions.

The Late Bronze Age roughly embraces the four centuries from the expulsion of the Hyksos from Egypt down to the arrival of the Aegeans and the Fall of the Egyptian Empire. It stretches from approximately 1580 B.C. to 1200 B.C. It witnessed the rise of the New Empire in Egypt under Thothmes III, the loss of the empire under Akhenaton and the reconquest of part of it under the pharaohs of the Nineteenth Dynasty. The period is brought to a close with the arrival of "the People of the Sea".

But during these four centuries, Palestinian cities were subjected to frequent successful attacks culminating in many cases with the complete destruction of some cities and their abandonment for considerable periods of time. There was first the wholesale destruction of cities carried out by Thothmes I and III between 1500 B.C. and 1470 B.C. Megiddo, Beth-Shan, Jericho, Tell

Beit Mirsim, Hazor and many others were destroyed by fire. Some cities like Megiddo, Hazor and Beth-Shan survived the destruction and were rebuilt, while others like Jericho and Tell Beit Mirsim remained derelict until about 1 00 B.C. when they were rebuilt.

Many cities including Tell ed-Duweir, Megiddo and Jericho were subjected to the attacks of the Habiru during the Tell el Amarna Age between 1375 and 1340 B.C. Most but not all the cities survived this attack and were rebuilt only to be destroyed again by Seti I about 1314 B.C. The last ordeal through which the cities had to go through came with the invasion of Merenptah about 1220 B.C. when he destroyed a large number of cities in the country.

The period has been subdivided on technical and historical grounds, into two sub-phases. The first phase, designated as Late Bronze Age I, spread over a period of just under two centuries from 1580 to 1400 B.C. Most of the relics of this age come mainly from Megiddo but some information has been gleaned from the excavations at Hazor and Beth-Shan. During this period Egyptian influence was,as to be expected, paramount. The second phase, or Late Bronze Age II, lasted roughly from 1400 B.C. down to 1200 B.C. The culture of Palestine was subjected to various external influences besides that of Egypt during this phase. It was the period which witnessed the Habiru onslaught on Phoenicia, Syria and Palestine; it was the age of Hittite ascendancy and it was the era which witnessed an expansion of trade between the Near East on the one hand and Cyprus and the Aegean basin on the other. Aegean influence was not due so much to foreign

conquest as to the great expansion of the volume of trade between the two areas. Egyptian influence, in spite of the temporary loss of the Egyptian Empire in Asia, was too deeply ingrained, however, especially after the short revival of the Empire under the early Ramessids, to disappear completely.

The first phase of the Late Bronze Age witnessed the expansion of Egyptian authority abroad on an unprecedented scale. Thothmes I headed a punitive expedition against the country and Thothmes III undertook seventeen campaigns against the Retenu and Amu of Syria and Palestine, which were followed by a number of punitive expeditions by his successors. The Egyptians levied heavy tribute on the country and well nigh impoverished it. For the first time the Pharaohs of Egypt appointed governors, to sit side by side with the local dynasts in order to obtain a firm hold on the country. This state of poverty is reflected in the reduced number of cities and the diminution in the size of a large number of others which were rebuilt during the latter part of the phase under review. The funerary equipment is not as rich as that of the preceding age or even of the earlier part of this phase and the arts and crafts of the age betray a definite decline. In architecture the difference between this and the earlier period is only one of degree; the two periods share the same characteristics in both military and domestic architecture, but the execution in the Late Bronze Age is more shoddy and inferior. However, two important temples were discovered, one at Megiddo overlying the remains of an earlier Middle Bronze temple and the other at Tell ed-Duweir which was discovered in the fosse at the bottom of

the Hyksos rampart.

The temple at Megiddo consists of a large hall at the back of which there was a shallow recess in the wall in which a statue of the deity, or some other cultic symbol was set up. At the entrance there were two small rooms one on either side, which were probably used by the care-takers.

The temple at Tell ed-Duweir was first built about 1480 B.C. It consisted of a hall about 10 m. long and 5 m. wide. Along the central axis of the hall there were stone supports for wooden posts which carried the roof. At one end of the temple there was a low altar with three blocks projecting from it into the hall. Along one of the long sides of the temple there was a room which could be approached only from the sanctuary and which must be considered therefore as a priest's room. The other room was probably a porch. This temple was abandoned sometime at the end of the Fifteenth Century B.C. and rebuilt soon afterwards on a much larger scale. The later temple is roughly square in plan. Four wooden posts resting on stones, which were found in situ supported the roof. At the south end there was an altar and around the other three sides there were benches two deep. There was a room at the back of the temple communicating with it by a side door. This may have been the holy of holies, but another side door from the outside precludes this possibility. This temple was slightly modified during the Fourteenth Century by the removal of the wall between the hall and the room behind it, and the addition of a second room to the west of the room at the back of the temple. A bronze figurine of the Phoenician god Reshef

was found in the temple and this may suggest that it was dedicated to this god.

Of the other monumental buildings of the age, mention may be made of a large house or palace discovered near the gate at Megiddo. It consists of a large hall which leads into a number of rooms on the north, east and west sides. The entrance was on the south side. The palace measures about 50 m. in length and 25 m. in width.

In this palace a large cache of jewellery was discovered including horned gold pendants, gold finger rings, gold plaques, lapis lazuli beads, glass beads and other articles of ornament.

A temple belonging to the middle of the Fourteenth Century was discovered at Beth-Shan (Beisan). In this temple which consisted of a large number of rooms and courts, a massebah was discovered in one of the courts.

The Late Bronze Age Gate at Megiddo is built over that of the Middle Bronze Gate and presumably on the same alignment. The plan of the gate follows those of the previous period already discussed. It consisted of a passage divided into two bays by three pairs of piers two pairs at the ends of the passage and the other in the middle.

In no craft is the decline more sharply felt than in the ceramic industry. Practically all the commoner forms of the previous period continued in use in the Late Bronze Age I, but they were poorly thrown. Burnishing as a form of finish was discarded, and was often replaced by wet smoothing. The forms lose their grace and are but sorry imitations of the thin-walled vessels of the previous

period. But what the pots lost in grace was more than made up at the outset by surface decoration; the potters of the age resorted to painting to embellish their vessels.

However, a number of new forms do make their appearance for the first time. Among these there is a vessel which is made of greenish cream ware with a greenish slip and painted at the shoulder with a thick band, divided into panels, like architectural metopes; each panel contains either a gazelle, a fish, a bird or a geometrical pattern in bichrome. The vessels so decorated include jars of medium size, large jugs, craters, deep bowls and goblets. An attempt has even been made by Heurtley to ascribe this type of painted pottery to a potter working at Tell el Ujul. This class of pottery, however, had a very short lease of life, lasting no more than a few decades. On the other hand, the vessels of the previous period continue and sometimes it is difficult, in the absence of other evidence to distinguish between the pottery of the last phase of the Middle Bronze and the early phase of the Late Bronze; the later vessels generally have thicker walls and are not burnished. These include dippers, carinated bowls, large jars and cylindrical juglets.

In addition to the vessels just enumerated four other types appear in this period. The first is a small amphora made of red ware with a cream slip; it has a low ring base, a spheroid body with a sharply sloping shoulder, a relatively wide neck of medium height and two loop-handles placed on the shoulder; late in the age the handles are placed higher up, one end being attached a short

distance above the bottom of the neck and the other at the base of the neck. The neck and upper part of the body are usually painted in bichrome with geometrical patterns.

The second vessel is a low open bowl with a short stem. It is made of light buff ware with an ivory cream slip and is very highly burnished. It has been suggested that this particular bowl was made in imitation of Egyptian alabaster vases.

The third vessel is a goblet of red ware; it has a ring base and upright walls. Sometimes it stands on a high stem. It is generally painted with wavy bands in red and black.

A curious type of jug appears in this age, which in general form looks like a large cup. It has a low ring base, a carinated body with a slight bulge a short distance above the base. The walls of the vessel slope sharply from the rim to the widest part of the body; the vessel has a flanged rim. The handle is attached at the rim and the sloping shoulder. It is often painted with geometrical and floral patterns. This type of vessel continues into the second phase, but in the second phase the handle is attached below the rim and the finish is coarser.

A characteristic type of decanter makes its appearance during this period. In form it is similar to the decanter which we noticed in the Middle Bronze Age, but it differs from it in the surface treatment. Whereas the decanters of the earlier period are red-slipped and burnished, or cream-slipped, during the Late Bronze Age I, they are painted on the neck and shoulder with geometrical

or floral patterns in red; the designs used include sets of horizontal bands placed some distance apart and linked together with triangles and palm branches dropping from the upper to the lower of the two bands forming a radiate solar pattern. Also the handle of the decanter is considerably smaller than that of the previous age. This type of vessel appears in several sizes and the capacity of any one of them bears an approximate arithmetical ratio to the one next in size. The dippers of this phase tend to have more rounded and less pointed bases and the handle is more rounded and less angular compared with the dippers of the previous age.

In addition to locally produced vessels, there were some importations from Cyprus due to the intensive trade which flourished between that island and Palestine. In particular there were hemispherical bowls with wish bone handles; they have an ivory white slip and are painted on the outside with a chequer-board band in brown around the rim from which ladder-like designs drop towards the base of the bowl. Another Cypriote vessel which was introduced during the age is the so-called "bilbil" or base-ring ware. The type of vessel in question has a high ring base, a piriform body, decorated with crescent-like protuberance in slight relief, a long slanting neck with a double collar set at about two thirds of the way up the neck from the shoulder and an everted rim. A thin loop-handle is attached from the collar on the neck to the shoulder and the jug is treated with a chocolate brown slip recalling oxide of copper. The vessel is no doubt copied from metal proto-types, but the suggestion has been made that it may have been copied from vessels made of animal skins.

There is also a smaller edition of this large jug, which however has the double collar at the neck, but no crescents in relief on the body. In some cases the slip may be red instead of chocolate brown.

Belonging to this same group is a lentoid vessel. The neck is decorated with a double collar and it has one thin handle attached at the collar and the shoulder.

During the Late Bronze Age II, there was a large importation of Cypriote and Mycenaean wares into the Near East. These include base-ring ware such as bilbils, Cypriote bowls with wish-bone handles, Mycenaean pyxes, lentoid vessels (pilgrim bottles), oenochoe, stirrup vases, craters, jars and deep bowls. Most of these forms were locally imitated and the local forms of the first phases were slowly superseded. It is impossible, with the multiplicity of forms, to give a full and detailed description of the various forms used, but a short description of the most important features of the commoner types may not be out of place. The vessels were found in occupation levels as well as in tombs.

Base-ring ware is represented by three forms, two of which, the bilbils, are alike and vary in size only, but the third is different.

A. The Large Bilbil. This is a juglet of thin buff ware, covered with a grey slip. It has a high ring base, a piriform body, a long slanting neck of medium width, an everted rim and a flat thin loop-handle attached on the neck, about two thirds of the way up, and on the shoulder. This jug differs from its counterpart of Late Bronze I in that there is no collar on the neck nor are there

crescent-like protuberances on the body. Instead the surface of the vessel is painted with sets of vertical and oblique white lines, which replace the design in relief.

B. The Small Bilbil is identical in form with the large type, but it is not painted. Sometimes also, it is even left without the grey slip.

C. Similarly the difference between the lentoid vessel belonging to this group and the vessel of the previous age lies in the absence of a double collar at the neck and the painting in white over a grey slip.

D. Oenochoe of the base-ring ware were not as common as the bilbils, but they do appear in small numbers. The base of this type of vessel is generally ogee or trumpet based, the body is globular, the neck is of medium width and height, and the rim is flared; the flat loop-handle is generally attached on the rim and shoulder. In some cases the rim was pinched into a trefoil. The body of the vessel was sometimes vertically fluted or grooved, and the neck was decorated with a collar at its base. The vessels were slipped with a chocolate brown slip. This type of vessel, known as Bucchero ware, was produced in Cyprus late in the Bronze Age and continued well after the Twelfth Century.

E. A fourth Cypriote vessel which is found in great abundance during the Late Bronze Age II is an hemispherical bowl of buff ware with a cream slip; it has a handle shaped like a wish-bone attached horizontally at the rim. This type of bowl is generally decorated on the outside with a ladder designs in dark brown, dropping from a band around the rim; but it differs slightly from the same

bowls of the previous age in the greater amount of painting.

The imported Mycenaean ware is too well known to require any detailed description. The commonest examples found are stirrup vases, "pilgrim bottles", pyxes, small craters and bowls. Local imitations of these appear in large numbers. The stirrup vases imitated in Palestine lack the graceful curves of the original, and the painting consists only of thick bands; the fine lines of the Mycenaean types were not reproduced. The local lentoid vessels can be easily distinguished from the Mycenaean originals by the letter V, formed at the attachment of the two handles across the neck. The pyxides, small craters and bowls can be recognized by the coarser ware and the ruder painting. Whereas most Mycenaean vessels were burnished, the locally imitated ones were not.

Of the local wares characteristic of the period, there are some jars, dippers, thick-walled bowls, decanters, cups and a special type of juglet. The ware is almost invariably light red in colour with a greenish cream slip; it is coarser and contains a certain amount of minute flint or quartzite grits.

A. The jars of the period have bluntly pointed bases, elliptical bodies, carinated at the shoulders, which are flattish, short necks of medium width and a cupped rim. The handles are attached just below the shoulder. The surface is finished with a wet-smoothed cream slip.

B. The dippers have pointed bases, ovoid bodies, narrow necks and the rims are pinched into a trefoil; the handle is attached from the rim to the shoulder; the surface of the vessel is generally shaved vertically.

C. The bowls are the most degenerate of the forms produced so far. They have coarse disk bases and are clumsily thickened around the middle of the body.

D. A juglet makes its appearance in this period and continues into the next. It is made of buff ware and has a cream slip; it has either a disk or a ring base, an ovoid or a spheroid body, and a narrow neck of medium height; the handle is attached half way up the neck and on the shoulder. The juglet is painted in monochrome with horizontal bands around the body and on the rim in brown or orange red. Except for the position of the handle, the juglet closely resembles the Mycenaean oenochoe.

E. The decanters witnessed in the Middle Bronze Age II and Late Bronze Age I phases undergo yet another transformation during the Late Bronze Age II. The new forms anticipate the decanters of the succeeding Iron Age. They are made of coarse red ware; the base is round, the body globular and the neck is short and narrow and decorated with a collar about the middle; the handle is attached from the collar to the shoulder. The body is painted with concentric circles in monochrome on opposite sides; on the side opposite the handle it is usually painted with a star-like design.

F. Yet another characteristic vessel of the age are shallow cups, with handles. They are made of the usual greenish cream ware and stand on ring bases. Sometimes they are painted with thin horizontal bands in red. This type of cup is equally at home in Palestine as well as in Cyprus and Phoenicia.

G. The lamps of the period are pinched even more than those of the Middle Bronze Age, otherwise there is little to distinguish them from their earlier proto-types.

Weapons and Tools.

Almost all the weapons and tools of the Late Bronze Age are made of bronze. During Phase I, the socketed and perforated battle-axes of the Middle Bronze Age slowly die out, and are replaced by thinner axe-heads. A new type of dagger makes its appearance; it consists of a short lanceolate blade provided with a long tang for inserting into the handle; generally a spheroid stone pommel was fitted at the end of the handle to provide a better grip. Towards the end of the period a second type of dagger is introduced; it consists of a long blade and a Nehavend type of handle which was probably decorated with some inlay.

Two varieties of spear-heads were in use during this phase; the first type consisted of a lanceolate blade provided with a tang for insertion into the shaft of the spear, and the other was provided with a socket in which the end of the shaft was inserted. However the latter can be easily distinguished from the earlier types. First the two lower ends of the blade, instead of making two gentle curves at the bottom are broken into acute angles and secondly, the blade is much thinner. Bronze arrow-heads make their appearance for the first time in Palestine; they are generally barbed just above the tang to make them difficult to remove after finding their mark.

With regard to bronze toilet articles there is little to distinguish between the mirrors of this period and those of the earlier age; but the toggle pins differ slightly; the melon-shaped toggle pins of the earlier period disappear and give place to toggle pins with elongated spiral heads, or with heads which are decorated with a number of rings.

The articles of ornament in precious metals and stone decreased and were mostly replaced by beads, pendants and brooches in glazed paste which was invented in Egypt at the time. These objects were imported in large quantities into Palestine. The beads were strung into necklaces and were of many shapes; some were oblong and others were in the shape of lotus buds, lilies, shells, animal figurines, phalli and montes Veneris. In addition a number of vessels were made in faience of various colours in pleasing forms. Besides these there were ivory ornaments, and the period is particularly rich in its artistic works in that medium. There were human, animal and bird figurines; the repertoire includes beads, pins, cups, buttons, plaques, pendants and so on.

In the realm of glyptic art, Egyptian scarabs in steatite, faience and ivory particularly those of Thothmes III and Rameses II, make their appearance in fairly large numbers. There were also some Mesopotamian cylinder seals and Hittite domed seals.

Bronze figurines of the god Reshef were discovered at Tell Abu Hawwam, at Tell ed-Duweir and at Megiddo. All were made in the round and the details are faithfully reproduced. In addition a large number of terra cotta figurines of

the goddess of fertility were discovered in large numbers in the occupation levels belonging to the Late Bronze Age in various sites. The deity is generally represented naked, covering her breasts with the palms of her hands, and was in fact inspired by the Egyptian figurines of the goddess Hathor. Other figurines, representing animals and birds which in all probability had some cultic significance, were also found in the same places. Some of them may have been toys.

The goddess of fertility was mass produced in moulds. She appears in the form of a plaque; the bird-like features of the earlier periods were discarded, and her head and other features were more faithfully rendered and assumed a more human form. The changes may be attributed to the strong influence of Egypt on the country. The animal figurines include bulls, cows, sheep, dogs and other quadrupeds. Some imported Cypriote bulls, made in the same ware and style as the base-ring ware of the Late Bronze II, are sometimes found in the second phase of the Late Bronze Age. One such bull was discovered at Tell Abu Hawwam.

Egyptian expansion during the period gave a great spurt to trade and this led in turn to an increase in literacy. At least three different systems of writing were in use in Palestine. In addition to the Egyptian hieroglyphic and the Akkadian cuneiform syllabic systems of writing there was an attempt at an alphabetic system. This was a system of writing which appears to have first been used at Byblos and found its way into Palestine during the second phase of the Late Bronze Age. The earliest example that has come down to use was

discovered at Sarabet el Khadem near Wady el Mughara in Mt. Sinaii. At Lachish an ewer was found inscribed with a few letters. The system seems to have developed by acrophony with a few borrowings from the Egyptian signs.

Of the other artefacts discovered in Palestine, mention may be made of the large number of alabaster vases which were imported from Egypt. Furthermore the manufacture of faience objects eventually made its way into Phoenicia and a large number of faience beads of various shapes were produced in the country. They were exported both from Egypt and Phoenicia into Palestine where they were discovered in large numbers at Megiddo, Beth-Shan, Hazor and Tell ed-Duweir.

Sculpture in stone is very rare in Palestine and where found it is inferior in quality. Mention may be made of the stele of a goddess and a libation bowl which were found at Tell Beit Mirsim. But in spite of this there were stele which were imported into Palestine from the neighbouring countries like the stele of Seti I and the Lion stele both of which were found at Beisan. The latter was probably imported from Mesopotamia. A number of other Egyptian stele were discovered at Megiddo.

The burial customs prevailing in Palestine during the Late Bronze Age did not differ appreciably from those practised during the Middle Bronze Age. The dead were buried in communal graves, which were cut in the rock. The tomb was roughly circular in plan. Most of the valuable personal belongings and his accoutrements were buried with the deceased.

In spite of the decline in prosperity, both men and women adorned themselves with jewellery. They wore necklaces made of amethyst, carnelian, faience and gold beads, large gold pendants in various shapes such as rosettes and horned crescents, gold earrings, gold or silver bracelets and gold head bands. The wealthy ornamented their clothes with gold shields and rosettes which were sown on to the garment. A rich haul of jewellery was discovered in the palaces at Megiddo as we have seen. The jewels were kept in wooden boxes inlaid with carved ivory.

Of special significance is an ivory carving board which was discovered at Megiddo. It is oval in shape and has two curved cuttings on either side with a projecting ring on the top. It is decorated with rosettes and has 58 holes for shifting the men around the board. It is not clear how the board was used, but at present the Arabs play a game which is known as dama where the men move from opposite sides of the board and try and capture the men of their opponent when it is not protected. The player who captures his opponent's men first wins.

During the long period of settled life in the country, extending from the Neolithic Age down to the end of the Bronze Age, we came across no artefacts that could properly be called Israelite and the Israelites played no role whatever in the civilization of the country until the Early Iron Age. During the Middle Bronze Age, the era of the Patriarchs, the Hebrews were moving in small bands and led a nomadic life. They raised sheep and cattle which they traded for cereals with the settled population, but their activities were not restricted to Palestine.

In the cities of the entire Bronze Age not a single trace of Hebrew occupancy can be traced. Yet excavations have shown that there were flourishing cities established by the indigenous population of the country who had a prior claim to the land.

It is only with the succeeding age, the Iron Age, that the Israelites started playing a role of some importance in the history of the country, a role which lasted for about 400 years in Judah and two hundred and eighty years in the north. It is true that the Israelites arrived in Palestine during the Amarna Age in the Fourteenth Century B.C. yet after their arrival, they continued to roam over the countryside as nomads living in tents and did not live in cities, nor were they able to capture any city of importance in which they could live until the time of David. Their name first appears in history outside the Bible on a stele of the Pharaoh Meneptah which goes back to the last quarter of the Thirteenth Century B.C. about two centuries before David. The Habiru tribes who invaded Palestine and Syria in the Fourteenth Century were not all Israelites, but no doubt the Israelites were members of this great Semitic wave which was attracted by the fertile lands lying along the fringe of the Syrian Desert.

Chapter VIII

PALESTINE DURING THE EARLY IRON AGE

A drastic change took place in Palestine as a result of the disruption which hit the Near East at the beginning of the Twelfth Century B.C. because of the Dorian invasion of Greece and Asia Minor. The invasion caused a great convulsion not only in the basin of the Aegean, but also along the entire eastern seaboard of the Mediterranean. Its repercussions were deeply felt in Palestine and the neighbouring countries.

The original inhabitants of the Aegean, the Achaeans and their kindred folk, were expelled from their homes by the Dorians and other Indo-European tribes who descended on the Balkans and Asia Minor from the north early in the Twelfth Century B.C. The Aegeans roamed over the Mediterranean in search of new homes. They attacked the Near East in a vast pincer movement; one arm of the pincer spread over Asia Minor in a great sweep, destroyed the Hittite Empire in their stride and descended on the Phoenician Coast leaving fire and devastation in their wake. They destroyed Alalakh, Ras Shamra and Aradus, but by the time they reached Byblos, the sharpness of their onslaught had been blunted and the sacred city escaped destruction. The second arm of the pincer, which probably set out from Crete by sea re-enforced by contingents of Akwash of Shardenu, Danunu, Shekelesh, Zakkala and Washasha from Asia Minor, thrust itself against Egypt; although the sea-people were defeated by Rameses III some-

where about 1194 B.C. at the Battle of Pelusium,[1] yet he was unable to push them back into the sea and had to permit them to settle on the south coast of Palestine. The arrival of the new-comers led to a contest with the Israelites over the supremacy of the country. The invaders are referred to in Egyptian annals as Pulu-seti and in them we see the Biblical Philistines who gave their name to the coastal strip in which they were allowed to dwell. The new-comers came with their women and children and their ox-carts with every intention of settling and not merely raiding. The arrival of the Philistines in Palestine ushered the Iron Age into the country. It is true that iron was not unknown in the Late Bronze Age, but its use was very limited.

At the beginning of the Twelfth Century we get a very complicated picture of the political situation in Palestine. The Canaanites apparently were living in the cities, the Philistines along the narrow strip of coastland between Dora and Gaza and the Israelites in camps and villages in the hinterland of the country. The Canaanite city-dwellers and the Israelites were tributaries of the Philistines. The Israelites, in spite of their frequent revolts did not gain their independence until the reign of David.

The Iron Age of Palestine, extending roughly from about 1200 B.C. down to the coming of Alexander the Great in 331 B.C., has been divided on historical and cultural grounds into three phases, Early, Middle and Late.[2] The

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[1] Some authorities prefer the date 1167 B.C. for this battle.

[2] Albright calls the periods in question Iron I, II and III.

Early Iron Age covers the first three centuries from 1200 to 900 B.C. It em raced the era of the ascendancy of the Philistines and the emergence of the United Kingdom of Israel. The Middle Iron Age extended roughly from 900 to 550 B.C. It covers roughly the era of the divided kingdoms of Israel and Judah and their subjection to the status of tributary states, first to the Assyrians and later to the Neo-Babylonians or Chaldaeans. The Late Iron Age or Persian Period extends from 550 to 330 B.C. Some archaeologists prefer to place the beginning of the Middle Iron Age in 926 B.C. Although there is some historical justification for this, the actual change which occurred in the ceramic industry was very gradual and was not sufficiently perceptible at the outset to warrant the adoption of this precise date. Actual developments in the ceramic industry did not take place before the Ninth Century B.C.

The beginning of the Early Iron Age in Palestine presents a very complicated picture on account of the various industrial techniques adopted in different parts of the country. There was first of all the continuation of the industries of the local population who continued to hold the cities at the beginning of the age. Next comes the industry of the semi-nomadic Israelites who crudely copied the forms used by the indigenous population; finally there was the Philistine industry which was restricted to the coastal area and some parts of the Shephelah or foot hills of the Mts. of Judaea.

With regard to iron tools and weapons, the Philistines at the outset held a monopoly over the base metal; the Old Testament tells us that "there was

no smith in Israel".[1] The Israelites used to buy their tools from the Philistines and had to go down to the coast to sharpen their plough-shares and other implements. The Philistines produced daggers, swords, axe-heads, spear-heads, plough-shares, knives, sickle-blades and nails of iron, but no arrow-heads as these continued to be cast in bronze. Not many of these tools and weapons have come down to us whole for the simple reason that iron rusts and disintegrates far more quickly and more completely than other metals. In many instances the presence of an iron tool is indicated only by a lump of iron oxide. The shapes of the various tools and weapons are more often guaged from the pottery or limestone moulds in which they were cast rather than from the artefacts themselves. However, an iron dagger with a bronze hilt was discovered in the tombs at Tell Farah side by side with other weapons in bronze. An iron knife was also discovered at Megiddo.

The axe-heads have two sharp edges and are pierced with a hole in the middle for inserting the handle. The swords and daggers consist of tanged blades; the tang was inserted into the handle or pommel. The spear-heads were lanceolate in shape and were socketed while the bronze arrow-heads were shaped like laurel leaves and are tanged for fixing into the dart, but they are not barbed like the arrow-heads of the Late Bronze Age. It should be emphasized, however, that the change from bronze to iron was very gradual. In some cases, the dagger blades were made of iron, but the nails with which they were riveted to the handle

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[1] Cf. I Samuel xiii, 19 ff.

continued to be made of bronze. It was not until almost the end of the Iron Age that iron completely superseded bronze to a great extent.

A very interesting bronze stand with openwork was discovered at Megiddo. It is decorated with two seated figures on each of the four sides.

In the ceramic industry, the cities in the hinterland of Palestine which continued to be independent, continued to produce the forms of the previous age and the changes which were introduced were due to natural development. The common types produced by these folk consist of jars, jugs, juglets, dippers, bowls, cooking pots, pilgrim bottles, locally imitated pyxides, zoomorphic vessels and lamps. The jars were ovoid in shape and had a round base. The handles were attached at the middle of the body. One characteristic feature of these jars is the collar around the rim, which however disappears towards the end of the period. The jugs have a flat base, piriform bodies and a handle attached from the rim to the shoulder. The juglets have a small disk base, a piriform body, a long narrow neck and a handle attached from the middle of the neck to the shoulders. The dippers have a round base, a cylindrical body, a short narrow neck and a pinched rim. The bowls have either a disk or a low ring base and a plain rim. Pilgrim bottles tended to have long necks and slightly distended lentoid bodies. Most of the smaller vessels were treated with a light red slip and burnished horizontally. Most of these vessels were imitated by the Israelites who were living at the time in villages in the countryside, leaving the original inhabitants secure within their city-walls. The Israelite pots were very crude

and the small juglets they produced were actually made by hand.

Then came the Philistines who settled along the coast, but who eventually extended their suzerainty over the rest of the country. Philistine pottery is noted more for the decoration of the vessels rather than for the introduction of new forms. Most of the Philistine pottery is painted in red and brown. The most notable feature is the swan pluming its back, but in addition there were chequer-board designs, scale patterns linked with chevrons, stylized palm trees, vertical wavy and straight bands, crosses and other geometrical designs. The forms include jugs with a flat base and a globular body, jugs with a disk base and a globular body, a collared neck and a handle attached from the collar to the shoulder. In addition there were open bowls, tall jars with a round base, ovoid body, wide neck and two handles attached on opposite sides of the body, dippers similar to the Canaanite proto-types, pilgrim bottles and lamps, pinched slightly more than those of the previous period. There is in the Palestine Archaeological Museum in Jerusalem an imitation stirrup vase painted with swans pluming their backs. However the Philistines did introduce two new forms which were hitherto unknown in Palestine. One was a peculiar type of jug, which had a disk base, a globular body, a medium size neck and a slightly everted rim; the handle is attached from the rim to the shoulder. In addition it is provided with a trough spout and a strainer and is generally painted in bichrome with chequer-board designs, palm trees, ducks, swans pluming themselves, scale patterns and horizontal bands. The other type is a crater or a deep bowl provided with

two handles. It is generally believed that this type of vessel was used for mixing wines.

To these two new industries, there developed yet a third industry, the industry of the Israelites. The Israelites being still uncouth and semi-nomadic, borrowed freely from both the indigenous Canaanites and the Philistines. The miniature juglets of the Canaanites were imitated but they were made by hand. Other types were made on the wheel. In addition a new type of cup made its appearance; it had a disk or a round base, a depressed globular body, a wide neck decorated with a collar and a handle attached at the collar and the shoulder, the vessel was painted with red and brown bands.

Other vessels that made their appearance during the Early Iron Age include kernoi, decanters and special types of jugs. Kernoi made their appearance in Greece and Cyprus during Geometric I but they were imitated locally. They are tubular vessels in form of rings with openings on top sometime taking the shapes of animals' or birds' heads. A very interesting kernos was discovered at Beth-Shemesh. It consists of a bowl with a tubular rim connecting with two ducks' heads, one extending from the tubular rim to the middle of the bowl and the other protruding from the rim like a spout. It is painted in red and brown. Another kernos discovered somewhere in Palestine and at present in the Archaeological Museum of the American University of Beirut, consists of a tubular ring with two openings one on top of the tube for filling and the other in the form of a cylindrical spout set below it. It has an intense red slip and is

highly burnished to a shiny gloss.

The decanters of the Early Iron Age differ considerably from those of the previous period. They are provided with a low ring base, a cylindrical body, a sloping shoulder, a narrow neck decorated with a collar around the middle and a rolled rim; the handle is attached from the collar on the neck to the shoulder. The vessel has a highly burnished intense red slip.

A peculiar type of jug appeared late in the Early Iron Age, but continued in use until the end of the Middle Iron Age, undergoing many changes in the process. The Early Iron Age type had a disk base, an ovoid body, a collared neck which flared towards the rim. The handle was set between the collar and the shoulder. The jug has a cream slip, over which it was painted with red horizontal bands at the middle of the body and on the top part of the neck.

The cooking pots of the period have round bases, depressed globular bodies, collared rims; they are provided with two handles set between the rim and the sloping shoulder.

The bowls of the Early Iron Age have round bases, almost upright walls and are carinated at the base. They are provided with an intense red burnished slip, inside and outside.

In addition to the common vessels described there were quite a number of rarer forms which may be described as a tour de force such as the lentoid vessel provided with a cup at the mouth which was discovered at Megiddo, and the oblong cup with strainer in the Archaeological Museum of the American Uni-

versity of Beirut.

The toggle pins of the Bronze Age disappeared completely in the Iron Age and were replaced by bronze fibulae, which resemble the modern safety pin in conception. The fibula was a great improvement on the toggle pin, as clothes could be fastened with it more effectively and at the same time it fastened the clothes more securely and was less cumbersome.

In the realm of architecture, Palestine lagged far behind Phoenicia. When David and Solomon wanted to build palaces and temples they had to ask Hiram of Tyre to send architects to lay down the plan and masons, carpenters, metallurgists and ivory carvers to build and decorate their monumental structures. The plan adopted for the construction of the temple was the Bit-Hilani plan. Although the temple of Solomon has disappeared and may never be found, yet the description in the Bible tallies with a temple built on this plan discovered at Tell Ta yinat near Antioch.

Temples built on this plan consisted of a porch which was called the 'olam' with two columns set up either at the outside edge of the porch or in front of it. The porch led into a long hall, or "hekal", which in turn led to an inner chamber, the debir or holy of holies, which was screened off from the hekal. In the middle of the debir, there was an altar.

Some evidence of temple worship and ritual came from the temple at Beth-Shan. Here a number of cult objects, mostly braziers or incense burners were discovered which consisted of tall cylindrical stands with ventilation windows

in two registers sometimes ornamented with doves, naked goddesses, male figures, serpents, lions and so on. A number of these cult objects were also discovered at Megiddo, but in private houses not in temples. They include horned altars, braziers and chalices.

The palaces built by David and Solomon were in all probability constructed on a plan of a palace also discovered at Tell Ta'yinat. A palace built on the Bit Hilani plan consisted of a colonnaded porch approached by a flight of stairs which led by means of one or more doors into a large hall, which was probably the audience chamber or throne-room. In the case of Tell Ta'yinat a door led into a unit consisting of one hall and four chambers. Three of the chambers opened on to the hall, but the fourth room, situated in a corner of the building, did not open on to the hall but to the room next door. This well protected room was probably the bed chamber of the king. Behind the audience hall there were three rooms which were probably used by the administrative staff. To the right of the hall there is a long room which was probably used as a large magazine. The room in the southwest corner of the building contained a staircase which led up to the roof. Access to it was gained either from the front porch by means of a door or through the magazine. The Phoenicians used slightly bossed masonry with irregular marginal drafts. Examples of this type of masonry were discovered at Samaria, but they belong to the Middle Iron Age. The discovery of the sarcophagus of Ahiram at Byblos and a carved ivory inlay at Megiddo have helped to identify the cherubs as winged sphinxes, as both thrones appearing in

the carving are supported by these mythological figures.

Two important structures of the period were discovered at Megiddo: One was a palace built along two sides of a vast open court and the other was a large stable. The palace extended over an area of 60 m. x 60 m. It was built of headers and stretchers, sometimes interrupted by a course of rubble. The stables occupied a large area of the city and were extremely well built. There was room for about 450 horses. Where the horses were tethered, the floors had a cobbled floor, otherwise they were plastered with a coat of lime. Both were probably built by Solomon who had his chariots concentrated in that strategic city. Similar stables were discovered at the neighbouring site of Taanach, at Hazor and Tell el Hesi. The gateway of the city was an elaborate structure protected by several towers and at least six chambers for the guards. Similar gates were discovered at Lachish and Ezion Geber (Tell Khalifeh).

An interesting feature of building methods at Megiddo is the use of Proto-Ionic capitals, which consist of a block of stone carved with volutes.

An earlier palace, built by Saul according to Albright was discovered at Tell el Ful five kilometres north of Jerusalem. It consists of a large court and it is fortified by four towers,one at each corner,one of which only was discovered. The walls were constructed of roughly cut stones laid in rough courses. They were built in casemate style, with two outer shells with rubble between. Similar casemate walls of roughly the same period were discovered at Hazor, Tell Beit Mirsim and Shechem. The Israelite masons were still new at the trade and the

structure is far inferior in execution to the Solomonic buildings at Megiddo.

Of the other structures going back to the Solomonic era, mention may be made of the copper smelter discovered at Ezion Geber. The furnace rooms were provided with two rows of flues, for providing a strong air draught and intensifying the heat. There were also large clay crucibles with a capacity of 14 c. feet each.

Extensive cemeteries of the Iron Age were discovered at Gezer, Megiddo, Tell ed-Duweir, Tell en-Nasbeh and other sites. The inhabitants of the Iron Age, whether Canaanites or Israelites, buried their dead in rock cut chambers. With the dead were buried their belongings and a considerable number of pots, no doubt containing food and beverages. The Philistines, however, buried some of their dead in anthropoid clay sarcophagi, roughly cylindrical in form, but tapering slightly towards the base. The features of the deceased were crudely moulded on the cover. The Philistines introduced a new type of a tomb which consisted of a stepped passage or dromos leading into a rectangular or square chamber with straight sides. During the earlier periods the plan of the tombs was roughly round.

Reference has already been made to the ivory inlay discovered at Megiddo. It forms part of a large cache which was discovered in a room in the palace near the gate. The ivories were collected and placed in the room for safe custody. Their dates vary between the Fourteenth and Twelfth Century as one of them actually was incised with the cartouch of Rameses III. Included in

the repertoire of objects discovered is an ivory box carved with lions and winged sphinxes, a plaque with a gryphon, representations of sphinxes, a figurine of a nude female wearing a cylindrical head-dress, a wand decorated with the head of a female goddess, a comb decorated with a lion reclining surrounded by trees, a figure of an Egyptianized female holding a stylized lotus bud.

But by far the most important inlay is a plaque which is shaped like a spoon and which is carved with a very interesting scene. At the left end of the plaque there is a king seated on a throne supported by two winged sphinxes (cherubs). The king is shown in the act of drinking out of a cup. In front of him there stands a female wearing a cylindrical head-dress and a long tunic, richly embroidered, reaching down to the ankles. Behind her stands a musician playing a harp, followed by a soldier wearing a short tunic armed with spear and shield. He is followed by two prisoners, nude except for a cloth cap, with their hands tied behind their backs. They are followed by a chariot, drawn by two horses, and led by a charioteer holding the reins in his right hand and a whip in his left. Above the horses, there is a winged disk. A foot soldier holding a curved dagger makes up the rear. Behind the throne, in the circular part of the inlay, there are two persons, one holding a round object in both hands and the other a cup. Between them there is a large jar, probably a wine jar, behind which we see two heads, the head of a gazelle and the head of a lion. In front of the cup bearer there is a flying dove.

The ivory gaming board discussed in the last chapter was found together

with this group.

A remarkable new feature of the Early Iron Age was the introduction of methods for conserving water. At Megiddo, this question was dealt with in an effective manner. Megiddo relied on a spring outside the city for its water supply. This meant that during sieges the city would be put to great straits. The citizens of the Early Iron Age boldly solved the problem by sinking a stepped shaft into the rock and tunnelling a gallery which led to the spring. A wall was constructed to protect the spring from outside.

In other sites cisterns were excavated in the rock and lined with lime plaster.

Chapter IX

PALESTINE UNDER ASSYRIAN SUZERAINTY

The Middle Iron Age

The independent Israelite monarchy established by David about 1000 B.C. came to an end with the death of his son Solomon about 926 B.C. At the death of Solomon the north successfully revolted under Jeroboam and the kingdom was split into two, the Kingdom of Israel in the north and the Kingdom of Judah in the south, but both kingdoms soon became tribute paying vassals to the rising kingdom of Assyria.

At the beginning of the Ninth Century B.C. there arose a number of petty states in the Western Horn of the Fertile Crescent, which had formerly been tributaries of the United Kingdom of Israel, but after the death of Solomon they shook the Israelite yoke only to fall under the suzerainty of Assyria. The most powerful of these petty states was the Aramaean Kingdom of Damascus. Its energetic king Ben-Hadad I (also called Hadadezer or Adad-Idri), entered into an alliance with the Aramaean and the so-called Syro-Hittite states in the north and created a formidable confederation. Later, he brought the north Kingdom of Israel under his vassalage and, because of Israel's political relations with her southern neighbours, Ben-Hadad became the virtual lord of the Levant, barring the Phoenician city-states lying on the coast. The political relations of Israel and her neighbours in southern Palestine and Transjordan was complicated by a system of vassalages and suzerainties. Judah and Moab were vassals of Israel

while Judah held Edom in subjection.

Early in the Ninth Century Assyria woke from her two centuries of lethargy and showed menacing signs of aggrandisement. Asshur-nasir-pal II crossed the Euphrates and suppressed some of the Aramaean principalities lying west of the river. His successor Shalmaneser III followed in his father's footsteps and made an attack on the Syrian principalities in the north. Ben Hadad I became alarmed, and summoning all his allies including his vassal Ahab to his aid, he attempted to block Shalmaneser's passage farther south at Qarqar in the Valley of the Orontes in 853 B.C. Although Ben Hadad was not defeated he was badly mauled. However, in the ensuing struggle between the two great kingdoms Shalmaneser eventually defeated Hazael, Ben Hadad's successor and brought Syria, Palestine and Phoenicia under Assyrian suzerainty. Thus the destiny of Palestine, for the next three centuries became closely linked with that of Assyria.

The rise of Assyria is due in a large measure to the wider use of iron weapons. The strength of the Assyrian army lay in its standing army of yeomanry archers rather than in the nobility and their retainers. In view of this the Middle Iron Age has bequathed a large number of bronze and iron arrow-heads. With regard to other iron weapons and tools, the output was far larger than that of the preceding age. In Palestine the monopoly held by the Philistines over iron came to an end with the rise of David and iron came into more general use. Sickle blades, plough-shares, axe-heads, daggers, lance-heads and later arrow-heads were produced in substantial numbers.

A large haul of Middle Iron Age pottery has been garnered from the large number of sites excavated in Palestine. The over-all picture presents an age of decline in the ceramic industry due in a large measures to the mass production to which ceramicists had to resort in order to cater to the needs of a quickly growing settled population. Although most of the vessels were turned on a wheel, they were lacking in taste and devoid of grace except for the short lived Samaria school of ceramicists. The firing was uneven and there was a tendency to break curves into angles. One of the characteristics of the age was the use of limestone grits in large quantities as a binder. In firing the grits burned into lime and, on exposure to the humidity in the air, they were slaked leaving pock marks on the surface. Furthermore, unlike the pottery of the previous periods, the pots of the Middle Iron Age, if burnished at all, were burnished on a wheel in such a careless manner that the wheel marks formed by the burnishing pebble may be easily detected. The number of forms increased and underwent some minor changes. The commoner vessels include jars, jugs, juglets, dippers, drinking cups, craters, decanters, bowls, cooking pots and lamps. Besides the local ware, there was a large number of vessels imported from Phoenicia and Cyprus.

The jars of the Middle Iron Age were of two varieties. The first, a development of the jars of the Early Iron Age, was an ovoid vessel with a rounded base, a short neck and two handles attached either at or just below the rim and at or just below the shoulder. The handles of some of these jars were stamped

with legends in Hebrew reading "To the king from Hebron", "To the king from Ziph" and so on. They appear to have been the jars in which taxes in kind were paid into the royal stores. The second variety is a cylindrical jar with a round base, no neck with a hole-mouth for an opening at the top.

A great variety of jugs was produced during the Middle Iron Age. A jug, which appeared late in the Early Iron Age, continued in production right through the three centuries of the Middle Iron Age. The low ring base of the Early Iron Age jug turned into a flat base, the body remained ovoid, the collared neck was retained but the rim was not as flaring as the proto-type, nor was there any painting on the neck and body. In the later varieties of this type of jug, the body became less ovoid and more globular and in the final stages it degenerated into a cylindrical jug; one end of the handles moved up from the collar to the rim.

A second type of jug appeared during the course of the Ninth Century. It had a flat base, a globular body, a funnel-shaped long neck and a handle set at the rim and the shoulder. By far the largest number of jugs or cups discovered in the Iron Age consisted of jugs with a round base, a squat globular body, a wide neck of medium height and a loop-handle attached at the rim and at the shoulder. This type of vessel was so numerous that it may be considered the hall-mark of the Middle Iron Age.

Equally characteristic is the jug which is still in production and is at present known as the "taus". It has a low ring base, an ovoid body tending

towards the globular, a wide neck and a slightly pinched rim; the walls are wet smoothed.

The small juglets which we have witnessed in the Early Iron Age continued in production, but they underwent many changes throughout the Middle Iron Age. At the outset they were made of black ware only, but towards the end of the period they were also produced in light red ware. The changes affect mainly the body of the vessel and the attachment of the handle. In the period under review the juglet loses its piriform shape and becomes more globular. The neck at the beginning of the Middle Iron Age is very long, but tends slowly to become shorter in the later phases of the age. The handle at the beginning of the age was attached at the shoulder and at the middle of the neck, but in the later phases it moved farther up the neck that by the Seventh Century it reached the rim. The juglets were highly burnished. Sometime in the Seventh Century, the forms tended more and more towards the cylindrical and the curves at the shoulder and just above the base tended to break into angles. Furthermore they ceased to be burnished and were merely wet-smoothed.

The dippers of the Middle Iron Age are more or less cylindrical in form, and almost invariably they are provided with a round base and a short neck; the handle is attached at the rim and the shoulder. In the early stages of the Middle Iron Age the dippers were burnished on the wheel, but towards the end of the period, they were wet-smoothed.

Craters, or deep bowls, provided with two, four or more handles appear in fairly large numbers in the Middle Iron Age. They were used for

mixing wines and other beverages.

Another hall mark of the Middle Iron Age is the square shouldered decanter. This appears in various sizes, but the form does not change. The vessel has a very low ring base, a more or less cylindrical body, with the curves breaking into a sharp angle at the shoulder and a rounded angle just above the base. The decanter has a short collared neck and an everted rim. The handle, which is flat in section, is attached at the collar on the neck and on the shoulder. Again the earlier varieties are burnished horizontally on the wheel and the later varieties are wet- smoothed.

The bowls also underwent many changes during the three centuries of the Middle Iron Age. Early in the Middle Iron Age, they were made more or less in the same manner as the bowls of the Early Iron Age, except that they were slipped and burnished on the inside only and the burnish was made on a wheel, showing the wheel marks on the bowl. During the Eighth Century a new type of bowl appeared, which had a low ring base, and a flanged rim. It was burnished on a wheel on the inside only. In the Seventh Century yet another type of bowl appeared which stood on a low ring base and had a lipped rim. In many cases the inside of the bowl was carelessly wheel burnished.

Middle Iron Age cooking pots are generally provided with a round base, a globular body and a short grooved neck; the handles are attached on the rim and the shoulder. The lamps are made of shallow bowls, pinched on one side to keep the wick in position. The pinched circumference of the bowl forms a

right angle, so that the wick is set in a groove. In addition some lamps are provided with a low stump base.

In addition to these vessels there were some pilgrim bottles which lost their lentoid shape completely and became more globular. Some of them were quite large and were decorated with two knobs just below the handles, which are often double-strand. Jugs, provided with a strainer spout, continued in production and were probably used for drinking beer. However they lost their graceful forms and the various elements in the jug were disproportionate. Equally important were the bowls on stands, which though not common, were characteristic of the age. The stand was considerably larger than the same type of bowl of the earlier periods. It had a wide trumpet base, which narrowed down to a thin tube half way up from the base and the bowl was slightly carinated; the rim was often flanged.

Importations from Phoenicia and Cyprus include the small black-on-red juglets decorated with black horizontal bands and concentric circles, zoomorphic vessels in the shapes of animals or birds and bowls painted on the inside with concentric circles.

In the early part of the Middle Iron Age, a special type of oil jar made its appearance. It had a wide low ring base, a globular body, a wide neck and two handles attached at the rim and the shoulder. In addition there was a funnel attached to the shoulder and the rim. It has been suggested that the funnel was added in order to drain the oil on the rim back to the jar after decanting and thus

prevent waste.

For children, terra cotta rattles were made during the Middle Iron Age. They were either cylindrical in shape and expanded at either end, or oval; they contained small pebbles for rattling.

Besides terra cotta figurines of animals a number of female figurines, generally called Ashtarte figurines, have been retrieved from the Middle Iron Age occupation levels in a number of sites. They consist of a cylinder with an expanded base. The top part consists of the head adorned with a head band ornamented with beads and flowers. The breasts are prominent and naked and are held up by the hands. Their presence in substantial numbers indicates that there was a large Canaanite community in the country.

On the whole, Palestine of the Middle Iron Age did not produce any great works of art. The ivories of Samaria are of Phoenician workmanship and belong to a school of ivory carving which flourished in that country during the period. The motifs used were mostly Egyptian and include such designs as sphinxes (cherubim), Horus seated on a lotus flower, a dead man standing in front of the door of his mastaba tomb, stylized palm-trees, a cow ravaged by a lion, borders of palmettes and lotus buds and so on. The plaques were carved either in low relief or open work. In some cases the plaques were further embellished by the addition of gold foil and filled with glass or paste. They were discovered in the debris left in the wake of the destruction of the city by the Assyrians in 721 B.C.

A new feature of the age is the prevalence of inscribed seals. A number

of oval seals, sometimes carved with animals and sometimes only with inscriptions giving the name and the function of the owner. Such a seal was discovered at Megiddo. It is carved with the figure of a roaring lion moving towards the left. Above the lion there is a Hebrew inscription reading "To Shema" and below "Servant (employee) of Jeroboam". Another seal is decorated with a sun-disk with an uraeus on either side and two other ureii on top flanking three lotus flowers. The inscription below the decoration is written in reverse order so that when stamped, it reads correctly "To Ushna, servant of Ahaz". A seal discovered at Ezion Geber and decorated with a lion is inscribed with the name of Jotham.

Besides the inscriptions appearing on seals, there was a number of other inscriptions discovered in Palestine. The earliest of these is the Gezer Agricultural calendar which belongs either to the end of the Early Iron Age or the beginning of the Middle Iron Age. It recounts the activities of the farmer from the olive harvest in autumn to the gathering of the fruits in summer and appears to have been used as a school exercise tablet.

Although the "Moabite Stone" was actually discovered at Diban in Transjordan, it is an important document as it has a bearing on the history of Palestine during the Ninth Century B.C. In it Mesha, the Dibonite King of Moab, gives an account of his successful revolt against Israel and states that Moab was brought under Israel's tutelage thirty years earlier during the reign of Omri the King of Israel.

King Hezekiah of Judah excavated a tunnel linking the spring at Gihon outside the city of Jerusalem to a large reservoir within the city. The labourers started cutting the rock in two groups, one group started at the spring and the other at the reservoir and the two met about midway between the two starting points. Hezekiah placed an inscribed plaque at that point to commemorate the achievement. The plaque is now in the Museum in Istanbul.

Besides these commemorative inscriptions, some ostraca were discovered at Samaria and Lachish. The Samaria ostraca consist of administrative documents inscribed on shards and belong to the Eighth Century B.C. Albright places them in the reign of Jeroboam II but Miss Kenyon believes that they go back to the reign of Jehoiahaz. They have shed a great deal of light on the administrative machinery of the Israelite Kingdom in the north.

The discovery of the "Lachish Letters" caused a great sensation among scholars, not only because of the contents, but also because they form a stage in the development of the alphabet. They were letters written by commanders of the neighbouring forts to the Governor of Lachish during the campaign of Nebuchadrezzer against the Kingdom of Judah in 588 B.C.

We are extremely well informed about the development of architecture during the Middle Iron Age, because of the large number of sites which belong to that period that have been excavated during the last few decades. Mention may be made of Samaria, Megiddo, Hazor, Tell el Far'ah (Tirzah near Nablus and not to be confused with Tell Fara near Gaza). Tell en-Nasbeh, Gezer, Tell

Abu Hawwam, Tell Beit Mirsim and Beth-Shemesh.

Excavations at Samaria and Megiddo show that Palestine owed a great deal to Phoenicia for the early development of its architecture. We have seen how both David and Solomon, during the latter part of the Early Iron Age introduced Phoenician architects, masons, carpenters and metallurgists for the construction of their temples and palaces. Similarly, Ahab, when building his palace at Samaria introduced craftsmen to carry out the construction for him and to adorn his palace with carved ivory panels. Both Samaria and Megiddo present similar architectural features which must be ascribed to the Phoenicians. One of these is the use of Proto-Ionic capitals and the other the construction of casemate walls. It is possible that use of the Proto-Ionic order of architecture started towards the end of the Early Iron Age, but its use during the Middle Iron Age is on a larger scale. The capital consists of a block of stone, carved with two volutes along the two sides of a central triangle. The volutes are carved on both sides of the stone. The capital in question rested over a square pier which presumably stood over a stylobate. The masonry used during this early period is well cut and very smoothly dressed. Boundary walls whether of cities or of enclosures had four marginal drafts which were not regular like the marginal drafts of the ensuing periods. Casemate walls were constructed mainly as fortifications. Examples of these were discovered at Samaria, where Ahab protected the royal enclosure with a casemate on four sides. Similar casemate walls were discovered at other sites, all belonging to the early part of the Middle Iron Age.

The masonry used in the early part of the Middle Iron Age was well cut and the surface was very smoothly dressed. In the latter part of the age, comprising the Eighth and Seventh Centuries, the masonry was roughly cut and very crudely dressed. This is no doubt due to the fact that in the important buildings constructed during the Ninth Century, Phoenician masons were engaged as at Samaria and Megiddo. In the following two centuries the kings of Israel and Judah were so impoverished by the heavy tributes paid to the Assyrian kings that they were unable to engage foreign architects and masons to build their important structures for them and most of the buildings were constructed by incompetent local masons.

The public or monumental buildings constructed during the Ninth Century may be classified under four heads, namely, city-walls and gates, palaces, temples and tombs. The only surviving palace built by Phoenician masons during the Ninth Century in Palestine is the palace of Ahab at Samaria. It was built at the top of an outcrop of rock, which was flattened and expanded into a large esplanade by the addition of a terrace. The flattened terrace measured 180 m. in length and 90 m. in width. The whole area was enclosed with a well built casemate wall. Two palaces were built within the enclosure, the first by Omri and the second by Ahab. In addition, a temple, a large pool and several cisterns were constructed within the enclosure. Although the greater part of the two palaces was destroyed, yet from the remaining architectural elements it is possible to restore, on paper, the various features of the two palaces. Apparently they were built on the Bit

Hilani plan discussed previously. A contemporary palace, built on this plan, was discovered at Sendjirli in Turkey and a second at Tell Ta'yinat in the Amuq Valley. As columns were an essential feature of structures built on the Bit Hilani plan the discovery of Proto-Ionic capitals during the excavations at Samaria lends weight to this possibility.

Buildings of a similar nature were discovered in Stratum IV at Megiddo. Albright places these towards the end of the Early Iron Age, while Miss Kenyon insists that they were Middle Iron and actually puts them after the foundation of Samaria. The difference between the two dates is about 60 years. The author feels that as both the structures at Samaria and at Megiddo were in all probability built by Phoenician masons and so far as we know there were no changes in building traditions during the sixty years in question, Stratum IV at Megiddo may well have been built during the reign of Solomon. Furthermore the Biblical account clearly states that Solomon erected buildings at Megiddo including stables which were discovered in Stratum IV. Thus the similarity in building methods at Samaria and Megiddo Stratum IV can be easily accounted for and the structures need not be absolutely contemporary.

Fortifications with casemate walls were discovered at Tell en-Nasbeh, but the walls were built of rubble and the masons did not use either smoothly dressed stones or masonry with irregular marginal drafts. Phoenician workmanship is absent and we may safely attribute the structures to local masons, influenced to some extent by Phoenician building methods.

Most of the cities of the Middle Iron Age were subjected to frequent destruction and reconstruction. Megiddo and Tirzah were destroyed at least twice.

The city-gates of the Middle Iron Age were constructed on entirely new plans. The gate at Tell Beit Mirsim for example was built on an indirect access plan into the inside of the city. On the other hand the gate at Tell en-Nasbeh is set between the towers built at the telescoped ends of the city-wall. It was provided with a bench on either side.

House construction had advanced by the Middle Iron Age to such an extent that the builders could use any type of plan, without the necessity of having to adjust them either to materials or to tools. Houses which were built on a rectangular or a square plan, were generally constructed along three sides of a central open court. Fronting the street was a colonnaded court, flanked by a room on either side. The front porch led through a door into the central court, around which the rooms were ranged. A second colonnaded porch was sometimes set up at the far end of the court; the latter afforded shelter on excessively hot days of the year, without any loss of privacy. A second floor was often built over the two rooms flanking the front porch, but the rest of the building usually consisted of only one storey, the terrace being used in summer evening for sleeping or recreation.

The foundations of Middle Iron Age houses in Palestine were built entirely of stones. The stones were roughly cut and laid in two parallel rows

in a trench about 80-90 cms. wide; lime and sand mortar and stone chippings filled the interstices between the stones and formed a solid compact mass.

A number of patrician houses belonging to the Eighth Century B.C. were discovered at Tell el Far'ah. They consisted of a court around which rooms were ranged on three sides; on the fourth side the court opened on to the street.

During the Middle Iron Age, the dead were buried in rock cut chambers. The corpses were laid along the sides of the chamber together with their worldly belongings. A large number of pottery vessels, no doubt containing food and beverages, were buried with the dead. They include jars, jugs, juglets, bowls and lamps. Many tombs of this type have been discovered at Megiddo, Tell ed-Duweir, Tell en-Nasbeh and other sites. An Iron Age tomb belonging to the beginning of the Middle Iron Age was discovered at Ez-Zahiriyyeh. In addition to the usual tomb equipment, it contained a jug delineated with the features of a female.

Excavations have shed some light on the daily life in Palestine during the Middle Iron Age. At Tell Beit Mirsim many loom weights were discovered indicating a thriving weaving industry. The numerous dye-vats also discovered on the same site show that the textiles made were also dyed in the same city. At Beth-Shemesh many wine and oil presses were discovered which throw light on the principal occupation of the citizens. For the retail sale of goods, the dealers used haematite weights, biconical in shapes and of various sizes. These were probably used by jewellers and apothecaries. For bulkier goods the shop

keepers probably used pebbles and other stone weights which appear in large numbers in all occupation levels that go back to the Middle Iron Age. Cereals were ground either in basalt querns with basalt pestles, both of which appear in large numbers on historical sites. Wheat was also milled with oblong grinding stones. Bread was baked in terra cotta ovens shaped like bee-hives.

The women of the Middle Iron Age decorated themselves with earrings, finger-rings, necklaces and brooches in silver and bronze. They applied various powders on their cheeks, eyes and lips, which they pounded in small limestone or alabaster mortars with pestles of the same material.

Evidence of the wholesale destruction of Lachish by the Neo-Babylonians comes from an old tomb in which about 2000 skeletons were discovered. The burial was probably made after the holocaust perpetrated by Nebuchadrezzar's generals. Of special interest are three skulls which had been trepanned showing that again surgery was practised by the inhabitants of Palestine during the Sixth Century B.C.

Chapter X

PALESTINE UNDER PERSIAN RULE

In 538 B.C. Cyrus II, the Achaemaenid King of Persia, captured Babylon and inherited the vast Neo-Babylonian Empire which, as we have seen, included Palestine. For the next two centuries or so Palestine came under Persian rule. As the Persian Empire embraced a very extensive territory stretching from the Ionian cities on the eastern seaboard of the Aegean to the Indus, an area where many divergent cultures had developed and as communication within the empire was relatively easy, Palestine was brought under the impact of a variety of civilizations some of which were well above her standard. The art of Palestine came in particular under the influence of the Classical culture of Greece.

The tolerant policy adopted by Cyrus towards his subject races, enabled a large number of Jews to return from their captivity to Palestine. They came back in two large batches one under Zerubbabel about 520 B.C. and the other under Nehemiah about eighty years later. Besides these two main groups, there were other dribbles of returning deportees but they were not of sufficient importance to draw the attention of the Old Testament Chroniclers. It appears however that only the indigent and those who could not eke a comfortable living in Babylon returned. The others who had managed to adjust to living conditions in Babylon and live in prosperity and comfort stayed behind.

The returning deportees found the country in a terrible state of devastation. All the former great cities were destroyed and in a few cases, hovels were

built in their places. The returning Jews restricted their settlement in Jerusalem and a small area around it.

Remains of the Persian Period have been discovered at Beth-Zur, Bethel, Lachish, Megiddo, Samaria, Tell Abu Hawwam, Tell en-Nasbeh and Tell Jammeh. In addition two cemeteries were cleared, one at Tell Fara and the other at Khirbat Dustrey near Athlit. The remains consist of unpretentious villages, with a large mansion for the Persian governor in some of them as at Megiddo and Lachish. In no instance was there a city discovered with fortifications and large houses for the citizens. Even the mighty city of Megiddo was reduced to the status of a small village. The picture we get is that of a poor country with a standard of living way below that of the flourishing cities of the neighbouring countries of Phoenicia and Syria. This may be explained by the fact that the deportation carried by Nebuchadrezzar in 586 B.C. drained the country from its intellectual and industrious classes leaving the harmless lower classes behind.

The Persian Period, or the Late Iron Age, as it is called sometimes, witnessed the widespread use of coinage. To archaeologists, this is a great blessing as coins are a far better and more precise criterion for dating than pottery. In addition, the well known black-figured and red-figured Attic wares especially lekithoi and kantharoi were imported into Palestine in substantial numbers, and, as these are well dated, they have helped to date the pottery of the Persian Period in Palestine. The Palestinian potters proceeded to imitate some of the forms of Attic and other Greek vessels, but without the Greek glaze.

The Jews returning from captivity preferred to copy the forms produced in the country during the Middle Iron Age.

Chance discoveries and excavations have shown that there was a large variety of coins in circulation in Palestine; some were struck for purely local circulation, while others were of more widespread use. Beginning with Darius I Persian coins were struck in both gold and silver. The Persian gold coins were well known among the Greeks who called them darics. The silver coins were called sigloi from the Semitic word shekel. All Persian coins minted in Susa, Ecbatana and Persepolis, the three repositories of the Persian treasury, were oval in shape. Both the darics and the sigloi had identical designs. On the obverse there was a figure of the Persian king in a kneeling-running position moving towards the right; the king was bearded and wore a turreted headdress (kidaris) and wide trousers (kandys); he carried a quiver of arrows on his shoulder and held a strung bow in his outstretched left hand; in his right hand he held an apple-butted spear over his right shoulder, with the head pointing downwards. The reverse of the coin bears the impression of the anvil incuse or sunk relief.

In spite of the almost continuous state of war between the Greek world and the Persian Empire, trade flourished between Palestine and the Greek cities, and the coins of Persia were accepted in Athens in payment for Greek goods while the Attic drachmae had such a wide circulation in Palestine, Phoenicia, Syria and Asia Minor, that they were almost tantamount to a de facto legal tender. The coins struck in Athens during the Fifth Century B.C. have on the obverse

the head of Pallas Athena turned towards the right, wearing a crested Attic helmet which is adorned with olive leaves and a floral scroll. Athena wears a circular earring and her hair is dressed in two waved masses. On the reverse, sometimes within an incuse square, there is the sacred owl of Athena, standing towards the right but with her head turned facing; behind her head in the field on the left there is an olive spray and a crescent moon, an allusion to the Athenian victory over the Persians at Marathon which took place on the last day of the lunar month; in the right field downwards may be read the three Greek letters: AOE (ATHE).

A crude coin of Athenian type was discovered in Palestine, but instead of the Greek letters AOE it is inscribed with the three Hebrew letters YHD which may have stood for Yahud. Another coin, now in the British Museum shows the Greek god Zeus, seated on a wheel and holding an eagle in his outstretched hand. In the field above Zeus appear the three Hebrew letters YHD.

Besides all these there were other coins, especially Phoenician, in circulation both in silver and bronze which need not detain us at present. However one coin should be mentioned and that is the coin which was specially strück for the Fifth Satrapy or Province of the Persian Empire comprising Palestine, Syria and Phoenicia. The coin is circular and has on the obverse the figure of the king of Persia, wearing the turreted crown and wide trousers, in a kneeling running position, shooting an arrow and holding a spear over his shoulder. On the reverse, there is a Persian noble on a horse, probably the satrap, galloping towards the right.

Although not many buildings of the Persian Period have survived the ravages of time, yet a sufficient number of examples have been retrieved to give an idea of the general trends in architecture and building traditions. Persian houses were generally constructed of hammer dressed masonry on a rectangular or square plan. Each house consisted of a number of rooms built along the sides of an open court which was colonnaded in parts. The main entrance to the building was through a colonnaded porch opening on to the street. Some houses were built in two storeys, the lower storey being constructed of stones, while the upper storey of sun-dried bricks. Houses were roofed either with gabled roofs supported on timber trusses, or with flat roofs. All doors and windows, except for the front porch, opened on to the court. Access to the upper storey was by means of a stairway, built partly of stone and partly of timber, which was set against one of the walls in the court. Examples of this type of house have been discovered at Beth-Zur, Bethel, Tell Abu Hawwam and Tell en-Nasbeh.

A governor's palace of the Persian Period was discovered at Lachish which was built over the ruins of earlier structures on the highest point of the site. It consisted of a central court surrounded by rooms on three sides. Access to the palace was gained by means of a door on the east side which led to a colonnaded porch opening on to the court. On the south side there was a wide stairway leading down to a corridor which in turn gave access to the store-rooms and magazines below. An interesting feature of this building is that at least one room was roofed

with a barrel vault, the voussoirs of which were found fallen on the floor of the room. A similar building of the same period was discovered at Tell Jammeh in south Palestine. It consisted of a massive structure constructed along the three sides of a long narrow court. A third palace was discovered at Megiddo on top of the mound. The dwelling houses built around the palaces in all three cases were mere hovels. Of the temple built by Zerubbabel in Jerusalem and the city-walls restored by Nehemiah there is absolutely no trace. Nor is there any trace of the temple built by Sanballat on Mt. Gerizim. The ruins of these three structures must have been removed entirely to make room for later structures. We do not find, as in the neighbouring country of Phoenicia, elements of the Persian orders of architecture with the capitals decorated with the protomes of animals or birds, such as those which were discovered at Sidon, nor do find any carved stelae of the type discovered at Umm el Amad near Tyre.

The ceramic industry of Palestine underwent some slight changes over the previous era. For example the large jars of the age seem to strike a compromise between the forms current during the Middle Iron Age and the imported Greek jars of the Classical Period. An average jar had a knobbed base, a trapezoid body tapering down to the knob at the base, a slightly sloping or square shoulder, a low wide neck, a rolled rim and two handles attached just below the shoulder. There is also a small jar, strongly influenced by Greek forms. It has either a pointed or a small disc base, an ovoid body, a narrow neck, a flanged rim with a sharp edge and two handles attached on the neck below the rim and at the shoulder.

The dippers of the period vary considerably from those of the neighbouring countries. They generally have a flat base, a cylindrical body, a medium neck, a flared rim and a handle attached from the rim to the shoulder.

The cooking pots have a round base, a squat spheroid body, a short wide neck, a sharp edged rim and two handles attached from the rim to the shoulder.

The Persian era boasts of a large variety of new jugs and juglets. From the Iron Age there is a small juglet made of buff ware with a cream slip. It is developed from the red juglets of the previous age. It has a flat base, a spheroid body, a narrow neck, a flared rim and a loop-handle attached at the lower end of the neck and on the shoulder; the body and the neck are decorated with horizontal bands in brown. This juglet may be a copy of a juglet of Cypriote origin.

Another variety of juglet, which developed from a type which was fairly common during the Middle Iron Age, underwent some decline in this period. The juglet in question has a pointed base, a cylindrical body, a distended short narrow neck and a flared rim; the small loop-handle is attached at the lower end of the neck and on the shoulder.

A fairly common juglet makes its appearance in this period; it is made of buff ware, and has a small disc base, a wide body which tapers from just above the base to the neck, a medium neck and a rim pinched into a trefoil spout.

Of the larger jugs, a Middle Iron Age type continued in production during

this period with some modification. It has a small disc base, a piriform body, a wide neck and a rim pinched slightly to form a small spout; the handle is attached from the rim to the shoulder. The decanters of the Middle Iron Age were also copied, but they show inferior workmanship and poor technique.

On the whole we note a sharp decline in the ceramic industry, which was due to two main factors, the first being the more widespread use of glass and the second the importation of Attic black-figured and red-figured vases. The well to-do used these in preference to locally produced vessels.

A large number of Greek lamps were imported into Palestine during the period, and these never fail to appear in the Persian levels of the excavated sites. In addition the local lamps underwent some slight modification; they continued to be made from saucers, but the two ends which were previously pinched only, now actually overlap. In some cases they were made of plates with flanged rims and pinched so that the pinched edges almost touched.

Of special interest are the stamped jar-handles which were discovered in various sites in Judaea. Some of them are inscribed with the letters YHD which stand for Yahud, while others are inscribed with the letters YRSLM which stand for Jerusalem. The letters are set between the segments of five-pointed star. In addition there were a few others which bore the letters MZH set within an oval seal. The significance of these has not been determined.

A small settlement of the Persian Period was discovered at Tell Abu Hawwam, a short distance north of Haifa. The buildings discovered on the site

are mediocre and unpretentious, but of special interest was the hoard of Tyrian coins, probably struck at Acre, which was discovered hidden in a small vase in one of the rooms, side by side with Corinthian and Attic vases. The coins bear the figure of Melqart, seated on a hippocamp riding over waves and shooting an arrow from a strung bow on the obverse and an owl carrying a crook and flail on the reverse.

Three interesting discoveries were made in a tomb at Tell Fara. The first is the bronze framework of a timber couch and stool, the second is a silver ladle, which consists of a small bowl which has a nude female in the attitude of diving for a handle and the third is a fluted silver bowl.

The cemetery at Khirbat Dustrey, although actually found in Palestine, is Phoenician. Phoenician coins of Tyre and Sidon and scarabs belonging to the Fifth and Fourth Centuries B.C. were discovered in the cemetery as well as a large number of imported Greek vessels. Of special interest is a bronze figurine of the Phoenician God Reshef and another of a soldier armed with a curved sword and a square shield.

The poverty of the country is best reflected in the paucity of inscriptions. Apart from some letters appearing on coins, on jar-handles and on the bronze frame of the couch and stool at Tell Farah hardly any inscriptions have been discovered which can be safely attributed to the Persian Period. By contrast Phoenician cities are very rich in epigraphic material, which appear on stelae as well as on the numerous coins which were minted in the four principal cities of

the country Aradus, Byblos, Sidon and Tyre. Of the inscriptions discovered in Phoenicia mention may be made of the stele of Yahumelek discovered at Byblos and the inscriptions discovered at the Temple of Eshmun near Sidon commemorating Bodashtart's restoration of the temple.

Chapter XI

THE HELLENIZATION OF PALESTINE

With the capture of Gaza by Alexander in 332 B.C. Palestine became part of the Hellenistic Empire of Alexander the Great.

A great change came over Palestine after it was brought directly under Macedonian rule. Alexander was accompanied on his military expedition by Greek philosophers, architects, masons, sculptors, painters and other artisans, as one of his primary objects in undertaking the conquest of the Persian Empire was to spread Greek culture and civilization in the Asiatic world, because he felt that Oriental culture had lost its vitality and had become effeminate and degenerate and a change had become long overdue. It is true that in process of time, when he had become acquainted with Oriental culture at first hand and found out that he was wrong, he decided to modify his former plan by attempting to fuse the two cultures the Oriental and Greek into one, rather than suppress Oriental culture and replace it by a purely Greek civilization; yet at the outset he was still labouring under the illusion that Oriental culture had had its day and had outgrown its uses and should be replaced forthwith. The successors of Alexander in Palestine, first the Ptolemies of Egypt and later the Seleucids of Syria, did not see eye to eye with him over this point, and in fact, when Alexander showed signs of retaining and adopting some features of Oriental culture, his companions expressed strong resentment and felt that he was betraying the Hellenic cause, Soon after his death, his successors reverted back to Alexander's

former aim and proceeded to Hellenize their kingdoms as much as they could; yet in spite of their firm determination to root out Oriental culture lock stock and barrel, they found that this culture was too firmly rooted to be completely eradicated. Without being quite aware of the development, the fusion of the cultures actually took place and became an accomplished fact, but not in the manner that Alexander had envisaged.

After the Battle of Ipsus in 301 B.C. Palestine came under the rule of the Ptolemies of Egypt who retained their hold on the country until the Battle of Paneion in 200 B.C.[1] when the country became part of the Seleucid Kingdom.

When the Seleucid Dynasty showed signs of cracking under the impact of the Parthian advance and the wars of succession of the Second Century B.C., the Jews in Palestine were emboldened to revolt and become independent. This independence was held precariously until the arrival of Pompey in 63 B.C.

Beginning with the Hellenistic Period coins came to hold a role of paramount importance in the study of archaeology. We have already seen how, starting with the Persian Period, archaeologists were inclined to lay a greater stress on coins rather than on pottery as a means of dating occupation levels. During the Hellenistic Period this tendency becomes the rule; pottery is resorted to only in the total absence of coins, which is not too frequent. Pottery gives a general indication of a period, but numismatics, because of the fact that new coins were minted for each reign, give a more precise dating to the level in

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[1] Or 198 B.C. as some historians suggest.

which they are found and pin it down more accurately. It is the latest coin found in a hoard or scattered in the debris of a building which gives the accurate date of the structure.

Pottery however does not disappear completely from the picture, and remains an important expression of art, because of its beauty and frequency. It is of interest to note,however, that for dating the pottery of the period, the earlier generations of archaeologists have had to depend on the coins which were found in close proximity to it.

Over this long period of time there were many types of coins in circulation in Palestine. The earliest were the coins of Alexander the Great, which were introduced about 330 B.C. and remained current until 306 B.C. In this study it is proposed to discuss only the commoner gold and silver coins which were issued by the various monarchs and cities. The less common silver and gold varieties as well as the bronze coins which were issued during the Hellenistic Age require a special study in themselves.

Alexander the Great struck three different types of common coins, one in gold and two in silver. The gold staters weigh about 8.8 gms. On the obverse, they are decorated with the head of Pallas Athena facing right, wearing a Corinthian helmet adorned with a griffon, a serpent or a sphinx and decorated with plumes; on the reverse, there is a representation of Nike advancing towards the left, holding a wreath in her extended right hand and a standard at the slope in her left hand. In the field on the right, the coin carries the name of Alexander

in Greek, written downwards.

Of the silver coins of Alexander, there are tetradrachmae and drachmae. The tetradrachm weighs about 17 gms; on the obverse there is the head of Herakles facing right, wearing a lion-skin over his head, knotted with the claws at the neck. On the reverse there is a figure of Zeus, seated on a throne, facing towards the left; he wears a himation, or sheet, over his lower limbs and holds an eagle in his outstretched right hand; his left hand rests on a sceptre; the name of the king in Greek appears in the right field written downwards. In addition, the mint mark and other symbols appear in the left field and under the throne. The silver drachmae weigh about a quarter of the weight of the stater, but otherwise the designs on the two coins are identical. Some coins which were struck between 323 B.C. and 316 B.C. bear the name of Philip Arrhidaeos in Greek characters instead of that of Alexander.

After 306 B.C. the only coins current in Palestine were the coins of Antigonus Monophthalmos, who continued to strike coins of Alexander the Great, and Demetrius Poliorcetes, the son of Antigonus. Demetrius Poliorcetes struck coins in the name of his father which were identical with those of Alexander the Great, except that on the reverse the words ΒΑΣΙΛΕΩΣΑΝΤΙΓΟΝΟΥ appear in two parallel columns on the right and left fields of the coin respectively. The most famous of the coins of Demetrius Poliorcetes struck in his own name are those which bear on the obverse a statue of Nike, standing on the prow of a galley blowing a trumpet and holding a standard on her shoulder; on the reverse there

is a figure of Poseidon, nude, standing towards the left wielding a trident; at the bottom, the coin is inscribed with the Greek word for king, and in the right field downwards, the name of Demetrius also in Greek. It is of interest to note that the statue of Nike standing on the prow of a galley which was discovered at Samothrace in recent years and now graces the Louvre Museum, resembles the figure of Nike on the obverse of the coin of Demetrius.

After the Battle of Ipsus in 301 B.C., in which Antigonus Monophthalmos lost his life, his dominion in Asia was divided equally between Seleucus I and Lysimachus. After Ipsus Ptolemy retained control of Palestine and continued to strike gold staters and tetradrachms of Alexander and Philip Arrhidaeos down to 316 B.C. In 316 B.C. on the death of Philip Arrhidaeos Ptolemy proceeded to strike coins with a different obverse, but the same reverse. The head of Herakles wearing the lion-skin appearing on the obverse was replaced by the head of Alexander wearing an elephant's skin on his head. This type was soon replaced by another coin where the reverse was also changed. The statue of Zeus was replaced by a figure of Athena Alkis standing towards the right, wearing a helmet and a long tunic and armed with a shield; she appears in the act of hurling a spear with her right hand. In the left field, the Ptolemaic eagle standing on a thunderbolt started appearing for the first time. The coin still bore the name of Alexander but it is inscribed on the left.

When Ptolemy assumed royalty in 305 B.C. a drastic change took place in coinage which was to last for a long period of time. The head of Ptolemy I

himself, wearing a diadem and facing right appeared on the obverse, while on the reverse, there was an eagle standing over a thunderbolt and facing left; in the margin around the eagle the coin was inscribed in Greek with the name of King Ptolemy, ΠΤΟΛΕΜΑΙΟΥ ΒΑΣΙΛΕΩΣ. This was the first coin on which the head of the reigning monarch appeared on the coin, together with his name.

Ptolemy II struck a large number of gold coins with the jugate heads of members of his family on both the obverse and the reverse sides; but these coins are very rare, and in the few instances when they do appear, they often turn out to be good forgeries which one must guard against. The commoner silver coins of the early Ptolemies, Ptolemy I, II, III and IV, differ little in design and the only distinguishing marks are the letters and symbols in the field. Most of them carry the portrait of Ptolemy I and great difficulty was experienced at the outset in distinguishing the coins of one reign from those of another, because of the repetition of the portrait of Ptolemy I on all coins.

After the Battle of Paneion, Seleucid currency replaced the Ptolemaic. The silver coins of Antiochus III and Seleucus IV followed the pattern set by Antiochus I and II. On the obverse the head of the king appeared wearing a diadem tied at the back with a ribbon, the whole set within a border of dots. On the reverse the device consisted of the figure of Apollo seated on the omphalos, holding an arrow in his right hand and resting with his left on a bow. Apollo appears nude except for a laurel wreath around his head and a loin cloth around his waist. The coin is inscribed with the name of the king in Greek on the left and the word

BAΣIΛEΩΣ on the right.

Antiochus IV, in addition to adopting the reverses of the coins of his immediate predecessors, introduced another type of coin where Zeus appeared seated on a throne holding in his right hand a figure of Nike[1] and resting his left on a sceptre. Antiochus IV was the first to use a long inscription giving all his titles in full. The short reigned Antiochus V followed in his father's footsteps and adopted the three designs used by Antiochus IV for the reverse of his coins.

Demetrius I, in addition to retaining the usual figure of Apollo on the omphalos, introduced two other types. His tetradrachms bore on the reverse the seated figure of Tyche facing left, holding a sceptre in her right hand and carrying a cornucopiae over her left shoulder. His drachms had a cornucopiae between the two columns of inscriptions.

The coins of Alexander Balas and his successors and their rivals need not detain us as a great variety of designs was introduced for the reverses of the coins so far beyond the scope of the present study to even attempt to enumerate. In addition to all the designs used by their predecessors the kings of the period of the civil war also added Pallas Athena standing holding a statue of Nike, Sandan standing on the back of a winged lion, a thunderbolt within a wreath, an eagle with closed wings, the Dioscuri charging and various other motifs. To all these

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[1] Zeus Nicephorus.

designs Tigranes added the Tyche of Antioch seated with the river Orontes swimming at her feet. All later Seleucid coins were dated from the Seleucid era, which started in 312 B.C.

The silver coins discussed continued in circulation all through the Hellenistic Age, and the first Maccabaean kings did not start minting coins until the reign of John Hyrcanus I who minted bronze coins of small denominations with crude designs such as a crested helmet on the obverse and double cornucopiae on the reverse, or a Hebrew inscription set with a wreath on the obverse and two crossed cornucopiae on the reverse, or a flower between two buds on the obverse and a palm branch on the reverse. Alexander Jannaeus struck coins similar to the second coin described, but in addition he struck coins with an anchor on the obverse and his name in Greek around and an open flower on the reverse. The commonest coin of Alexander Jannaeus has an anchor on the obverse and a wheel on the reverse.

The city of Ascalon struck coins during the Second and First Centuries B.C. She struck a silver coin bearing the head of Aphrodite on the obverse and a dove on the reverse. Above the dove appear the letters AΣ. In addition bronze coins with the same designs were struck during the same period. Later she struck coins in silver bearing the head of Tyche on the obverse and a prow of galley on the reverse. Later still coins in silver and bronze appeared with the head of Tyche on the obverse and a war-galley on the reverse.

Another coin which went into circulation in Palestine late in the Hellen-

istic Age, is a coin of Tyre. On the obverse it has the head of Melqart wearing a laurel wreath and a lion-skin over his shoulder knotted with the claws at the neck. On the obverse there is an eagle standing on the prow of a galley with the club of Herakles in the left field. Around there is an inscription in Greek which reads: " To Tyre the holy city and city of refuge". In the time of Christ it was called a piece of silver to distinguish it from the other bronze coins in circulation at the time. It is generally thought to be the coin with thirty of which Judas Iscariot betrayed Christ.

During the Hellenistic Period a large variety of pots was used in Palestine; some of these were made locally, but others were imported in large quantities from Greece. Hellenistic pottery can generally be recognized by some well defined characteristics which can be summed up in one word, namely elongation; the bodies of the pots are elongated into elliptical forms, the necks become longer and more slender and the bases are generally provided with raised stumps. It would be impossible to enumerate all the forms that were current, but a few examples may suffice to give some indication of the new trends in the ceramic industry.

By far the most widely used vessel was the large pottery jar. The commonest jars had knobbed bases, squared shoulders, piriform bodies which tapered gently from the shoulder to the base; the neck is long and slender and the handles are angular and attached at the rim and at the shoulder. A peculiar type of jar was made in Rhodes and imported into Palestine and other parts of the

Near East in large numbers. The handles of this type of jar were stamped with the name of the Rhodian magistrate for the year and the month of export and also with the seal of Rhodes which consisted either of the head of Helios or of the famous Rose of Rhodes.

A peculiar type of jug appears during the period which was copied from imported originals. The vessel is called lagynos; it has a wide flat base supported on a low ring, a cylindrical body slightly tapering towards the base, a long slender neck, long slender angular handles, sometimes twisted like a rope. The originals are generally made of buff ware, with a white glaze on the outside, painted over with a stylized floral pattern in two shades of brown; the local copies are made of reddish ware, painted in reddish brown with the same type of design. Towards the end of the period some of these lagyni were glazed red in the Samian manner.

A third fairly common variety is a small jar with a wide ring base, a globular body, a wide neck of medium height and an everted flanged rim, with a red-and-brown glaze over which a stylized floral pattern is incised showing the actual colour of the ware. The handles are generally attached from half-way up the neck to the shoulder. An almost identical vessel to this is a jug which has only one handle attached at the rim and the shoulder, but in all other respects it resembles the amphora just described.

The bowls of the Hellenistic Period can be easily distinguished by two main characteristics: First the pronounced inversion of the rim and second the combined red and black or dark brown glaze; the bases of such bowls are small

and provided with a low ring for a support.

From this period comes a large number of infant feeders, which are copies of Greek originals. They generally have a disc base, a short stem, an hemispherical body, and no neck or rim; there is a loop-handle over the shoulder, opposite which, on the other side of the body, the feeder is provided with a horizontally placed conical spout. Feeders are sometimes glazed or slipped in red. The type described is the usual type of feeder in common use, but there are other varieties which have a short neck and a flared flanged rim; others still have the handle attached right over the shoulder.

By far the commonest type of pot of the age is the so-called "lachrymatory"[1] which has acquired the name because of the fact that it is usually found in large numbers in tombs, but perhaps it ought better to be described as a perfume bottle. The vessel has a small disc base with a fairly long stem, an elliptical body, a long slender neck, and a sharp edged flanged rim. It is made in a variety of wares, but the better specimens are glazed in black, grey or dark red and, painted with white horizontal bands. The "lachrymatories" produced locally are either painted red or left plain. The sizes vary from about twenty seven to seven centimetres in height.

During the Hellenistic Period a large number of bowls, made in Megara in Greece, flooded the Near East including Phoenicia. They were made on the

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[1] Tear bottle.

wheel, like all Hellenistic pottery, but were set in specially carved moulds, which left an impression on the outside of the base of the bowl. The usual pattern with which the bowl was thus decorated was a set of palm branches the ends of which were gathered at the centre of the base. In addition there were a few flared bowls made of very thin ware; they have a round base, and were painted in black and afterwards incised or painted with a floral pattern in very delicate lines.

Besides bowls, there was a variety of cups which also came into general use. They were made generally of buff ware, which had either a black or a red glaze. The cup (kantharos) was cylindrical with a slight carination a few centimetres above the base. Each cup was provided with two loop-handles vertically set on opposite sides of the cup, ornamented at the top with a slight projection.

Two types of lamp were used during the Hellenistic Period, the lamp with the bowed nozzle which was made on a wheel and the lamp with the elongated nozzle which was made in two moulds and the sections were then stuck together. The top of the latter kind was generally decorated with a scroll design on either one or other of the two sides.

Finally, before we leave the ceramic industry, mention must be made of the terra cotta figurines which were made in large numbers. These included a large variety of deities and heroes, including Egyptian and Greek gods. The figurines were made in moulds in two parts which were later stuck together and include Harpocrates, Bes, the Apis-Bull, Demeter and Kore, Eros and Psyche,

Aphrodite, Silenus, Dionysos, Hermes, Zeus, Herakles, Artemis, satyrs and a large number of athletes, dancers, musicians, slaves and animals. A factory for making figurines of this type was recently discovered at Kharayeb in South Lebanon. The original home of these was Tanagra in Boeotia, but the name is now applied to all types whether made at Tanagra or copied elsewhere.

During the Hellenistic Period a new type of weight made of lead was introduced. It consisted of a lead plaque made in a mould and decorated with two crossed cornucopiae.

Our knowledge of the architecture of Palestine during the Hellenistic Period is based not so much on concrete examples as on inferences derived from historical sources.

The new cities built by Alexander and his successors followed the pattern of Greek cities built in the Fourth Century. The orders of architecture current in Greece, the Doric, Ionic and Corinthian were introduced into Palestine and freely used in all buildings; the cities of the Near East generally, took on the aspect of Greek cities. Marble which is not very common in Palestine was imported in large quantities not only from Paros and Proconesus but even from Attica (Pentelic marble). Peristyle houses built in the Greek style, with a central court enclosed by colonnaded porches on all sides, gave access to rooms opening on to the courtyard. Unfortunately, in Palestine few complete structures of the Hellenistic Period survived for the simple reason that the buildings of the era, because of their rich building materials, were used as quarries in later times;

but there still remains a large number of architectural details such as columns, bases, capitals, which were used time and again by later generations.

Our information about the architecture of Palestine during the Hellenistic Age comes from three sites. The first is Tell Sandahannah (Marisa of the Greeks and Maresha of the Old Testament). Here a complete Hellenistic city was discovered built on the modified Hippodamian town plan with a main thoroughfare (cardo) crossing the city from one end to the other, and secondary wide street crossing it at right angles (decumani). The agora, or market place, which was situated just inside the city gate at the east side, was rectangular in plan and was enclosed within rows of shops on three sides, the north side being left open, and led into the cardo. About half-way through the cardo, which ran east-west there were two large courts, one paved with flagstones. The city-walls were fortified with towers at the corners and also at frequent intervals.

Near the town, rock-cut tombs were discovered which belong to the second half of the Third Century B.C. The walls of the tombs were painted with various scenes but in addition there were inscriptions in Greek, one of which was a love assignation in the after life. The most interesting painting was that of a procession of animals some of which are mythical. One of the tombs belong to Apollophanes, a Sidonian merchant who settled with a large group of his townsmen at Sandahannah at about 250 B.C. probably at the time the city was built.

The second city of the Hellenistic Age is Samaria. The old city-walls were repaired and refortified with additional round towers built mainly of headers

running deep into the wall. In addition a massive fortress was built during the Second Century B.C. The discovery of a large number of over 2000 stamped Rhodian jar-handles bears eloquence to the complete Hellenization of the city.

The masonry used in Marisa and Samaria is well cut and smoothly dressed and rests over solid foundations of large blocks of stone and rubble. There was a marked predilection for the use of courses of upright stones, as against headers and stretchers, during the Hellenistic Period. The masonry is set in a rich mortar of lime and sand. The floors are either covered with flagstones or with a coat of a paste made of sand, lime and ash spread over a ·ling of pebbles and polished.

The number of Hellenistic public buildings or monuments is very small because, for one thing, over most of the sites of these buildings new structures were put up during the Roman Period and, for another, as already indicated in the foregoing pages, the architectural elements of Hellenistic buildings, such as bases, columns, capitals, architraves, friezes and so on were greatly prized and were considered too valuable to be left alone; they were re-used in later structures, private and public alike.

Nevertheless there are a few outstanding Hellenistic monuments in the country like the round tower at Sabastiya, the monumental tombs in the Valley of Jehosaphat and the remains of a town at Beth-Zur (Khirbat Beit Sur) near Hebron.

The tower at Sabastiya, which was later incorporated into the Roman

defenses is built of large headers. The tombs in the Valley of Jehosaphat contain structures of two types. The so-called Absalom's Tomb (Tantur Far'un in Arabic) consists of a square base, surmounted by an urn set over a cone constructed in a rock cut recess overlooking the Valley. The tomb next door, now known as the Tomb of Zecharias consists of a cube surmounted by a pyramid. It is uncertain though whether these tombs actually belong to the end of the Hellenistic Age or the beginning of the Roman Period. The suggestion has been made that the tombs were Herodian, but they may well be slightly earlier, because of the similarity with Hellenistic tombs discovered at Amrit in Phoenicia.

The third city is Beth-Zur (Khirbat Beit Sur) which was excavated by Dr. Sellers. He discovered a number of buildings including a fortress, probably built by one of the Maccabaean kings. The masonry here is poor and not well dressed. Although Alexandrium (Qarn Sartabeh) in the Jordan Valley was founded by Alexander Jannaeus, it was almost entirely rebuilt by Herod.

In spite of the fact that they fall outside the scope of this work, the tombs of the Tobiad family at Iraq el Amir near Amman are worthy of notice. One of them is decorated with Corinthian columns and a frieze of lions; the other, which is cut in the rock, is inscribed with the name of Tobiah.

Sculptural remains of the Hellenistic Age are very scarce in Palestine. This may be explained by the fact that a large number of sculptures found their way into lime kilns during the later periods and secondly, because of the abhorrence of Jews to any representation of human or animal figures a large number

of these were deliberately destroyed. Nevertheless there is in the Palestine Archaeological Museum a bust of a Syrian Princess and a fine head of Zeus both in marble.

Chapter XII

PALESTINE UNDER THE ROMANS

After defeating Mithradates VI of Pontus and pacifying Asia Minor, Pompey the Great turned his attention to Syria. This action exceeded the terms of the Senatorial mandate, but Pompey felt justified to intervene because of the anarchy and chaos that had been prevailing in the country for about a century. He put the Seleucid Dynasty to an end and converted Syria into Roman Province. He was next called upon by the two Maccabaean brothers John Hyrcanus II and Judas Aristobulus II to settle their dispute over the succession. Pompey decided in favour of John Hyrcanus but the partisans of Judas Aristobulus were dissatisfied with the verdict and refused to admit Pompey's officers into Jerusalem; whereupon Pompey captured the city and brought Palestine within the vortex of Roman politics.

With the foundation of the Roman Empire after Actium, the Near East came to enjoy two centuries of peace and tranquility, but Palestine was an exception. The Jews were restive under Roman rule and time and again they revolted and plunged the country into chaos. Under the Herods there were frequent insurrections and civil commotions and both Herod the Great and his son Herod Archelaus had to resort to extreme measures in order to restore peace. The suppression of the Herodian Dynasty and the institution of the procuratorship did not improve matters and the latent discontent exploded into a large scale revolt, the First Jewish Revolt, in A.D. 66 which took two of the ablest Roman generals

four years to suppress. A second revolt during the principate of Hadrian in A.D. 132 took three years to quell. The two centuries of peace enjoyed by the rest of the Roman Empire contrast sharply with the civil commotions, disturbances and frequent revolts in Palestine.

There is no hard and fast line dividing the Roman from the Byzantine Period in the Near East. The cultural changes that took place were gradual and hardly perceptible until after the passage of a long period of time. It may be accurate to say that the Roman Period in Palestine began in 63 B.C., but one cannot say that it ended precisely at any particular date. However, archaeologists in the Near East have arbitrarily selected the date of the foundation of Constantinople in A.D. 330 as the beginning of the Byzantine Period rather than the end of the Roman. In numismatics the reign of Anastasius, because of the monetary reforms instituted by this monarch, has been set for the beginning of the Byzantine Period and by implication, the end of the Roman Period. But both these dates are arbitrary as in many ways the Roman traditions held sway for some time after the two dates indicated. However, after the Edict of Milan in A.D. 312 a large number of Christian Churches were put up and these certainly constitute a new departure from the old order.

The chief feature of Roman Palestine was the construction of large edifices which were put up, in most cases, on the sites of former public buildings. The country was embellished with a large number of monumental buildings such as temples, palaces, fortresses, theatres, baths and mausolia. Present

day Palestine is perhaps richest in the monumental and public buildings which survived from this period. This is due in a large measure to the fact that the Romans introduced into Palestine the use of megalithic masonry in construction; this practice often deterred later generations from expending unnecessary energy on dismantling Roman structures and breaking up megaliths, in order to use the material in their structures. Side by side with the use of megaliths, came the use of opus reticulatum where small square stones were laid diagonally over a concrete foundation.

It would be beyond the scope of this work to include all monumental Roman buildings in Palestine, but mention may be made of a few outstanding monuments such as some section of the city-walls of Jerusalem in the southeast corner of the city; the Wailing Wall or the West Wall of the Temple of Herod, the so-called "Tower of David" in the Citadel in Jerusalem, the Roman Temple at Sebastia, the fortresses at Masada, Jabal Fureidis and Qarn Sartaba, the Roman theatres at Beisan and Sebastia, the Roman Forum and Basilica at Sebastia, the Hippodrome at Sebastia, the city-walls and other buildings at Caesarea, the Haram at Hebron, the palace and agora at Tulul Abu el Alayiq and a number of others.

Sections of the Herodian city-wall may be seen below the southeast corner of the present city-wall. They are built of large megaliths weighing several tons, in keeping with Roman building traditions in the Near East. The wall was built as a retaining wall to the temple enclosure so as to provide a

level terrace for the court of the temple.

Only part of the West Wall of the Porch of Herod's Temple now called the Wailing Wall, is still preserved. Originally the temple was set in the middle of a vast court, bounded on all sides by colonnaded porches. There were two parallel rows of columns in the north, east and west porches and three rows of columns in the porch on the south. Herod patterned the sanctuary on that of Solomon's Temple, in that it was divided into three parts, the ulam or porch to which the general public had access, the hekal or temple proper, and the debir or Holy of Holies. The ulam was adorned with four columns and approached by twelve steps in front. It led to the hekal to which only priests had access. The debir was approached through the hekal to which only the high priest had access. The temple was adorned with columns and entablatures. Included in the temple furniture was a large menorah or seven-branched candlestick which was, after the destruction of the temple, carried away to Rome. The incident was commemorated in a carving on the Triumphal Arch of Vespasian in the Forum at Rome.

At the northwest corner of the court, a tower was built by Herod which was called the Tower of Antonia in honour of Mark Antony. Nothing remains of this except the Lithostrotos or flagstone pavement, now under the Convent of the Sisters of Zion. Some of the flags were incised with designs for a game with which the Roman soldiers amused themselves. In the same property, there is the stump of an arch which also forms part of the Tower of Antonia, at present incorporated into the modern church. Below the Lithostrotos there are vast vaulted

cisterns which also belonged to the Tower of Antonia.

Another important monument surviving from the Roman Period is the so-called Tower of David in the Citadel in Jerusalem. The substructure of this tower is built of large masonry with marginal drafts. This tower together with two others that have been destroyed, formed part of the Upper Palace built by Herod in Jerusalem.

Two other important structures survive from the Herodian era. One is the Haram at Hebron, which is built of large megaliths, and the Haram at Ramet el Khalil, three kilometres north of Hebron.

Besides beautifying Jerusalem and embellishing Hebron in order to cull favour with the Jews, Herod founded two pagan cities both in honour of Augustus. One was Samaria which was renamed Sebaste and the other was Caesarea. At Sebaste Herod built a large temple dedicated to Augustus (Augusteum). The temple was built over a raised podium and approached by a flight of wide stairs at the end of a large forecourt. Herod also refortified the city by a substantial city-wall with the gate on the west side. At the east end of the city he built a forum with a basilica adorned with columns at the end. In the valley to the north of the city, he built a hippodrome which was protected by fortification walls. The seats of the spectators were protected by a roof carried on columns.

Caesarea was fortified with a city-wall and provided with a sea mole 60 m. long. In it Herod erected a temple in Caesar's honour in which a colossal

statue of the emperor was set up. In addition the city was adorned with an amphitheatre, a theatre, a hippodrome and an agora. The water-supply of the city was assured by the construction of two aqueducts which carried water from springs lying some distance north of the city.

Because of his alien origin, Herod was never accepted by the Jews as a lawful king. To protect himself from his restive subjects Herod is reputed to have built seven fortresses on both sides of the Jordan. He built a fortress at Masada above the Dead Sea, a second at Herodium, modern Jebel Fureidis or Frank Mountain near Bethlehem, a third at Alexandrium on the site of a fortress built previously by the Maccabaean king Alexander Jannaeus and at present called Qarn Sartaba and several other places. The fortresses were built of masonry typical of the Herodian Period with four marginal drafts and a roughly dressed surface. A fourth fortress was built at Tulul Abu el Alayiq near Jericho. On the same site his son Archelaus built a palace and a market place in *opus reticulatum*.

The Romans introduced the construction of theatres into Palestine. It is possible that some theatres may have been constructed during the Hellenistic Age, but none of these have survived. A theatre was discovered at Sebastia and another at Beisan, Roman Scythopolis.

The Romans left behind numerous roads which used to link the cities and villages of the country. The general lay out of these can still be traced although most of the flagstone pavements have disappeared. However two

streets at different levels were discovered while laying drains in the Tyropean Valley. One street lies about seven metres below the level of the present street and the second street about one metre higher up. Of some importance are the mausolea which were carved in the rock during the Roman Period. They are lavishly decorated with vines and other floral patterns. One of these is now miscalled the Tombs of the Kings of Judah and is situated near St. George's School; the other which has a gable at the top is now known as "The Tomb of the Judges". In the first an ossuary was discovered inscribed with the name of Helen of Adiabene who was converted to Judaism sometime in the first half of the First Century A.D.

Of the later Roman Period, there are two synagogues, one at Capernaum, modern Tell Hum, and the other at Chorazen, modern Khirbat Kerazeh. In the decoration on the synagogue at Capernaum a swastika is included.

If any baths were constructed during the Roman Period in Palestine they still have to be found. But by analogy with Transjordan, Syria and Phoenicia, it is very likely that they were put up in Palestine as well.

The plans of houses during the Roman Period did not radically change those of the Hellenistic Period. In fact Greek peristyle houses found their way into Rome and from Rome into all parts of the Roman Empire during the period under review. Houses continued to be built on a square or rectangular plan and the rooms were ranged along the sides of a small peristyle court or an atrium. The house opened on to the adjoining street through a long narrow passage.

Along both sides of this passage there were shops which opened on the street and the back walls of the shops and the houses abutted against each other.

The foundations of the houses consisted of large blocks of stone and rubble firmly laid. The walls were constructed either of masonry or of fired terra cotta bricks. Both stones and bricks were set in a sand and lime mortar mixed with ash.

During the Roman Period all the three orders of Greek architecture were freely used, but there was a marked predilection for the Corinthian Order. The orders were not always of white marble; local limestone of a very hard texture and light pink in colour, which was quarried near Bethlehem, was also used especially for the columns. In many cases the columns consisted of two or three drums. The masonry and bricks were well bonded and straight joints were unknown.

The floors used in the Roman Period were flagstones or mosaics. Flagstones were generally used in open courts and porches and mosaics in the rooms. In place of the architraves and flat roofs of the preceding period, arches and barrel vaults were used for roofing. The vaults were used in roofing, as well as in the construction of bridges. All doors and windows were arched and opened on to the central court. In most cases houses were constructed in one storey, but no doubt there were some houses that were built in two. Access to the upper floor was gained by means of stairwells set in one corner of the house between two sets of rooms. The stairs were generally built of stone supported

on arches, but it is possible that at higher levels, after the last landing, they were finished in timber.

The Romans in Palestine paid particular attention to water-supply. We have seen how Herod built an aqueduct to assure water-supply to Caesarea. Similarly, Pontius Pilate constructed an aqueduct from the so-called Solomon's Pools lying a short distance south of Bethlehem, to Jerusalem.

The output in sculpture during the Roman era is far greater than that of the Hellenistic Period, but the execution is greatly inferior. Large numbers of statues, heads and torsos of gods and individuals have been turning up in the Near East and are finding their way into museums and private collections. In addition to these, many funerary stelae carved with appropriate scenes were discovered and cippi, or head stones, have been found in large numbers. The inhabitants of Palestine of the Roman Period inherited their traditions in sculpture from their ancestors of the Hellenistic Age. However the Romans introduced realism into their art as well as landscape sculpture which was not popular with the Greeks.

The better class inhabitants during the Roman Period buried their dead in sarcophagi of Proconesian marble. The sarcophagi were actually quarried and made at Proconesos and only the finishing touches were completed in Palestine. Roman sarcophagi consisted of a stone box about 2.0 m. long, 80 cms. wide and 70 cms. high and had a gabled cover which was about 40 cms. high. The sides of the sarcophagus were decorated with garlands, three on each

of the long sides and one at either end, from which bunches of grapes were suspended. In some cases, the middle garland contained a tabula ansata for an inscription. The cover was generally plain, except for an antefixa at each corner. Two such sarcophagi were discovered at Tell Mubarak (generally misspelt Barak) near Caesarea. One of them is carved with a battle scene between Amazons and Greeks. At a later period lead sarcophagi were used. These were cast as sheets in moulds, and then soldered together. They were generally decorated with mythological scenes. The poorer classes were buried in wooden coffins. The sarcophagi were placed in chambers specially built for the purpose. As the Romans introduced cremation into Palestine, one often comes across lead urns in which the ashes of the deceased were placed.

In the First Century A.D. the dead used to be buried in loculi (kokim) in rock cut chambers. The bones were removed sometimes and placed in ossuaries or stone boxes to make room for fresh burials.

Great changes were introduced in the ceramic industry during the Roman Period. Foremost among these was the importation of Arretine ware which is sometimes named terra sigillata. Vessels were made in buff ware over which a thin red glaze was added. The forms of the vessels were very numerous, but they all had the same characteristics. There were juglets for example, with a ring base, a globular or an ovoid body, a narrow neck with a flanged rim and a double-strand handle attached at the rim and shoulder. There were small carinated bowls, decorated on the outside with rouletting and sometimes impressed

with the makers' initials or trade mark on the bottom such as palmettes and so on. Besides these there were also large plates treated in the same way. This ware was first made at Arretium in Italy and three vessels found in Palestine bear the name of a well known potter in Arretium. Later, however the ware was imitated in various parts of the Near East including Palestine. By about the end of the Second Century A.D., it completely disappeared and was replaced by pottery which was painted in red, in a feeble attempt to imitate the Arretine glaze.

As early as the beginning of the First Century of the Christian era a new type of pottery appeared which was lacking in grace and beauty. It was decorated with horizontal ribs on the outside. The ribbing at the outset was very fine, but it became coarser and coarser in process of time and indeed it has not yet completely disappeared.

The cooking pots of the Early Roman Period (30 B.C. - A.D. 180) had round bases, squat bodies, low necks and two loop-handles placed vertically on the rim and shoulder. They were decorated on the outside with very fine ribs. During the Late Roman Period (A.D. 180-330), the ribbing became very coarse, but otherwise there was no change in the shape and treatment of the vessel.

Various types of large jars were used, the commonest being a tall jar with a pointed base, a cylindrical body, sloping shoulders, a short neck and two handles attached on the shoulder. As this type of jar had a long lease of life, it cannot be used as an index for precise dating. However there is a type of vessel which underwent frequent changes during the Roman Period and may,

after further study and classification, be used as a more accurate index for dating. It is the so-called "lachrymatory" which as we have seen came into use during the Hellenistic Period and was retained all through the Roman Period, undergoing several changes in due course. Two types were in use during the Early Roman Period: the first is almost identical with the Hellenistic lachrymatory except that it is not so well made and the rim is rolled instead of being provided with a sharp edge. The other type has no stem above the base, and the body rests immediately over a flat base. During the Late Roman Period the lachrymatories tend to become heavier and the base remains flat but the stem completely disappears.

The vessel, however, that underwent most change was the lamp. All lamps of the Roman Period were made in moulds in two parts, one for the top and the other for the lower part and the two parts were then stuck together when leather hard. During the First Century A.D. the lamps consisted of a round discus with a projecting nozzle; the discus was decorated in the middle with some design and was pierced with a small hole in a way so as not to interrupt with the decoration; a volute decorated the lamp on either side at the junction of the discus with the nozzle. The designs on the discus included figures of gods, athletes, animals, birds, fish, trees and other objects. Houses of ill repute used obscene designs suitable for the trade. The early lamps were sometimes glazed red. During the Second Century, the two volutes on either side of the nozzle tended to disappear and instead of the red glaze the lamp was often

painted red. During the Third Century, the hole occupied the entire middle portion of the discus leaving no room for any design except on the edge.

Some drinking vessels were actually made in the form of animals or birds, and the infant feeders of the Early Roman Period differ from those of the Hellenistic Period in the manner in which the handle was placed; during the Roman era it was set on the shoulder of the vessel rather than at its side.

During the Late Roman Period, in addition to ribbing, some pots were decorated with a series of deep incisions on the shoulder.

The discovery of rotating stone mills, wine-presses and olive presses in large numbers in the country point to an expansion of these industries during the Roman Period in order to cater to the demands of an expanding population. It is estimated that the population of Palestine during the Roman Period reached the 2,000,000 mark.

But the dating of the occupation levels of the Roman Period is not dependent on pottery so much as on coins. Pottery merely gives dating in centuries, but coins give more precise dates. By the First Century A.D. the use of coins in trade had become so widespread that during the period under discussion there were literally thousands of coins available which were used in the country. Besides the imperial coins which are easily recognizeable, some cities in Palestine were allowed to strike their own coins in bronze.

The imperial coins in gold, silver and bronze bore the head of the emperor on the obverse with his name and titles in Latin around the margin and on

the reverse they had a variety of subjects such as deities, religious symbols and so on. It would be far beyond the scope of this work to describe in detail the various types of coins minted in each city or even to enumerate all the cities that struck coins at all. However a short description of the commoner coins may not be out of place as indeed coins are not only an expression of art, but because of their preservation, they give an indication of what the ancient works of art in stone and marble looked like, because most sculptures found their way into lime kilns. Of the cities in Palestine who struck their own coins mention may be made of Sepphoris and Tiberias in Galilee, Caesarea, Neapolis (Nablus), and Sebaste (Sebastia) in Samaria, and Aelia Capitolina (Jerusalem), Ascalon and Gaza in Judaea. In addition, Herod and his sons were allowed to mint their own coins and after the suppression of the Herodian Dynasty in Judaea special coins were issued by the procurators of the province. Furthermore the Jews struck special coins during the First and Second Jewish Revolts.

Most of the coins struck in the Palestinian cities during the Roman Period bore the head or the bust of the emperor on the obverse with his name and titles around the margin in Greek, but sometimes in Latin. Sepphoris started striking coins in the reign of Trajan and continued minting during the reigns of Antoninus Pius, Caracalla and Elagabalus. The reverses of the coin do not vary very much and consist of either the name of the city in Greek set within a laurel wreath, a palm-tree with the name of the city across the field, a caduceus, or the facade of the tetrastyle Temple of Tyche or of Zeus.

Tiberias minted coins during the reigns of Claudius, Trajan, Hadrian and Commodus. The coin struck during the reign of Claudius has a palm-branch on the obverse and a laurel wreath with the name of Tiberias in Greek on the reverse. The later coins bear the busts of the reigning emperors on the obverse and on the reverse one of the following designs: Tyche standing holding a rudder in her right hand and the horn of abundance (cornucopiae) over her left shoulder, Hygieia, the goddess of health seated on a rock holding a serpent in her right hand feeding out of a phiale in her left, two crossed cornucopiae with a palm-branch between them, an anchor, tetrastyle temple of Zeus, Goddess of Victory (Nike) advancing to left and a galley with oars.

Caesarea started minting coins during the reign of Nero and continued to do so during the reigns of Domitian, Trajan, Hadrian, Antoninus Pius, Marcus Aurelius, Commodus, Caracalla, Macrinus, Elagabalus, Severus Alexander, Philip the Arab, Trajan Decius, Hostilian, Trebonianus, Gallus and Volusian.

Of the remarkable designs on the reverse the following may be cited:

A rudder within an oak wreath.

An anchor within an oak wreath.

Tyche standing holding a head in her right hand and resting with the left on a sceptre.

Tetrastyle temple of Tyche.

Emperor ploughing on an ox and a cow, commemorating the foundation of the city.

Head of Sarapis.

Emperor pouring libation over altar.

Emperor on horseback.

Legionary standard between two eagles.

The letters SPQR in a large wreath supported by a displayed eagle.

The city of Neapolis started minting coins during the reign of Domitian and continued to do so during the reigns of Antoninus Pius, Marcus Aurelius, Commodus, Macrinus, Elagabalus, Severus Alexander, Philip the Arab, Trebonianus Gallus and Volusian.

All the coins of Neapolis bear the bust of the emperor on the obverse. The reverse may be one of the following designs:

Name of city within a wreath.

Two crossed cornuacopiae.

Palm-tree with two bunches of fruits.

Two ears of corn.

Asklypios, the god of medicine, and Hygieia.

Mt. Gerizim with a temple on top.

Jupiter Heliopolitanus.

Sarapis.

Tyche standing.

Tetrastyle temple of Ashtart.

Ares.

Quadriga, and many others.

Sebaste, modern Sebastia, started minting coins during the reign of Domitian and continued to do so during the reigns of Commodus, Septimius Severus and Caracalla.

The obverse bore the heads of the emperors and the reverses bore one of the following designs:

Tyche, wearing turreted crown and short chiton, resting her left foot on a rock; she holds in her right hand a conical stone and rests with her left on a spear.

Zeus, wearing himation and holding a figure of Nike in his outstretched right hand.

A crested helmet.

Bust of Tyche wearing turreted crown.

Demeter, wearing long tunic, standing holding a torch in right hand and holding ears of corn in her left.

The god Ares or Mars, helmeted walking to the right, holding a shield on left arm and a spear in his right hand.

Tetrastyle Temple of Jupiter Capitolinus.

Rape of Persephone, Hades in galloping quadriga, looking back, carrying Persephone in right arm.

Founder ploughing on an ox and a cow.

Aelia Capitolina started minting coins during the reign of Hadrian, who re-founded the city. She continued to do so with slight interruptions until the reign of Hostilian. The busts of the emperors always appear on the obverse while the reverses may be one of the following:

Distyle temple of Jupiter Capitolinus.

The Emperor-founder ploughing on an ox and a cow.

Bust of Tyche wearing turreted crown.

Tetrastyle Temple of Tyche.

Bust of Sarapis.

Dionysios, nude but for chlamys, resting his left hand on a thyrsos and holding a kantharos in his right hand.

The god Ares or Mars.

The Dioscuri (Twins) standing.

Sarapis seated.

Roma, seated on shield, helmeted holding Nike in her right hand, and resting with her left on a spear.

Nemesis, wearing long tunic, standing plucking at her breast.

A quadriga.

Hygieia seated placing her right hand over a serpent which rises before her to feed out of a phiale which she holds in her left hand.

Ascalon started minting coins in the Second Century B.C. as we have seen and continued with some interruptions throughout the Roman Period down

to the reign of Maximinus.

The earliest coins of Ascalon struck during the Roman Period followed the traditional designs of the Hellenistic Age and continued to be minted in that style until A.D. 144. Side by side with these appeared coins with the heads of emperors on the obverse and one of the following designs on the reverse:

Tyche, wearing turreted crown and long chiton, standing on a prow, holding in her left hand an aphlaston and resting her right hand on a standard.

War deity, Phanebal, wearing a crested helmet and a short chiton wielding a harpe or dagger in his raised right hand and holding a small round shield in his left. The letters AC appear across field.

Temple, Egyptian style, with four doorways.

Derketo, Attargatis, wearing tunic standing on a Triton.

Dioscuri standing, fully armed.

Poseidon, wearing himation resting with his left hand on a trident, and holding a dolphin in his right hand.

Gaza like Ascalon started minting coins in the Second Century B.C. During the Roman Period it started striking coins during the reign of Augustus and continued to do so, intermittently until the reign of Gordian.

In every case, the head or bust of the emperor appears on the obverse. The reverse may be one of the following:

Tyche, standing, wearing a turreted crown and a long chiton, holding

a branch in her right and two ears of corn in her left. In the right field the symbol of Gaza ℎ and below ΓA.

Distyle temple of Artemis and Marnas with the figures of the two gods confronted.

The figures of Io and Tyche clasping hands.

Tyche, wearing kalathos, standing holding a cornucopiae in her left hand and resting on a sceptre with her right.

Apollo, nude, except for chlamys, resting his left hand on a branch and pouring libation out of a philale over flaming altar in his right.

Herakles nude resting right hand on a club and holding a lion-skin on his left arm.

Figures of Artemis and Marnas confronted.

Zeus, wearing himation.

Marnas nude, holding thunderbolt, crowned by Nike.

The coins minted for Judaea, whether they were struck by Herod and the Procurators or whether they were struck during the First and Second Jewish Revolts were crude in the extreme. No figures of human beings or animals appear on them and the designs are restricted to articles of apparel, furniture or arms.

For example one of the coins of Herod the Great has a tripod-lebes[1] on the obverse and a helmet on the reverse. Another has a crested helmet on the obverse and a circular shield on the reverse. A third coin has a wreath on the

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[1] A basin standing on three legs.

obverse and a tripod with curved legs on the reverse. Other designs used were cornuacopiae, anchors, a caduceus and a poppy.

Herod Archelaus, the ethnarch struck coins with double cornuacopiae bunches of grapes, helmets, prows of galleys and water-galleys with oars.

Of special interest is a coin of Herod Agrippa I, which has an umbrella with fringes on the obverse and three ears of corn on the reverse.

All Herodian coins are inscribed in Greek with the name of the ruling monarch or his title.

The coins minted by the Procurators display designs of plants and articles of furniture out of deference to Jewish feeling. Plants were not deemed as living organisms. Under Augustus, Procurator coins bear on the obverse an ear of barley and on the reverse a palm tree. Later coins show wreaths on the obverse and double cornuacopiae and branches with eight leaves on the reverse. Of special interest are the coins struck under Pontius Pilate. Some have three ears of barley on the obverse and a ladle-like simpulum on the reverse. Others have a lituus[1] on the obverse and a wreath on the reverse. All carry the name of the emperor under whom they were struck or members of the emperor's family in Greek.

During the First Jewish Revolt silver and bronze coins were struck by the rebels. There were shekels and half shekels which have a chalice on the obverse and a stem with three flowers on the reverse. The date appears above

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[1] A pastoral staff resembling a question mark.

the chalice. The bronze coins had a narrow necked amphora on the obverse and a vine leaf on the reverse. All are inscribed with Hebrew legends and most of them are dated.

Special coins were struck by Vespasian, Titus and Domitian to commemorate the Capture of Judaea (Judaea Capta). In all of them the head of the emperor appears on the obverse, while the reverse may be one of the following:

Trophy with a crouching captive below.

Nike writing on shield.

Palm-tree.

Nike advancing left.

Athena and trophy.

The coins struck during the Second Revolt include silver shekels and half shekels, as well as a number of bronze coins.

The shekels or tetradrachms depict the facade of the temple on the obverse with the Ark of the Covenant in the middle, while on the reverse there is a bundle of twigs. The half shekels which were restruck over Roman silver denari have a wreath on the obverse and a kantharos on the reverse. Others have a bunch of grapes on the obverse and a lyre on the reverses. Often the inscriptions and the designs of the original Roman coins show clearly below the Jewish designs.

The common bronze coins of the Second Jewish Revolt are of two varieties. Some have vine leaves on the obverse and a palm-tree on the reverse, while others

have a bunch of grapes on the obverse and a palm-tree on the reverse.

All the coins of the Second Jewish Revolt bear Hebrew legends either in the margin or across the field. A large number of these coins are inscribed with the name of Simeon (Bar-Cochba).

This is only a short list of coins which were minted in Palestine during this age, but it is sufficient to show the great variety of coins in circulation in the country and the trends in numismatic art.

Early in the First Century A.D., a Sidonian invented blown glass, and this led to a mass production of vessels in the new material. Very soon glass vessels of all types started replacing pottery wherever this was feasible, with the result that a large assortment of glass vessels and vases have come down from the Roman Period in Phoenicia and the neighbouring countries including Palestine, in spite of the fact that large numbers have been destroyed on account of the fragility of the new substance. Glass of the Roman Period generally has thin walls and includes plates, saucers, cups, small juglets, small jars, unguentaria and perfume bottles. One type, known among archaeologists as the "candle-stick vase", was very common. It is generally found in tombs and was at one time erroneously described as a tear bottle; at present however the view is gaining ground that the bottle in question contained some perfume to counteract the odour of decaying bodies. The vase in question has a flat base, a small hemispherical body and a very long thin neck.

In addition to pottery and glass a large number of bronze vessels have

come down from the Roman Period. These include jugs, vases and lamps. Besides these, handles of chests and wooden coffins, belt buckles, bells, fibulae, weights, crosses, spatulae for applying cosmetics, ladles, strigils, small lockets for carrying charms, locks and keys and other objects. The handles of bronze jugs and jars were generally decorated with a human or an animal head at the top. The handles of wooden coffins or chests were sometimes attached to a lion masque in bronze. Besides these a large number of figurines in bronze were produced mostly of deities and animals. The deities were modelled on Greek proto-types and include figurines of Venus, generally in the nude, Apollo, Hercules, Diana, Athena, Mercury, Sarapis, Tyche and a large number of Cupids. The animals include bulls, rams, goats, gazelles, sphinxes, gryphons, eagles and other birds.

During the Roman Period people used to place their valuables in wooden chests provided with locks. The lock consisted of a bronze hasp which fitted into a slot; the lock was worked by a secret bronze key which was circular and divided into segments so that unless the segments of the lock were divided in the same way the key would not fit.

Lead tesserae were made during the Roman Period which enabled the citizens to enter theatres, places of amusement, or ceremonies which were reserved for the privileged few. The tesserae bore appropriate designs and correspond to the modern tickets or invitation cards.

The inhabitants of Palestine were very lavish in the decoration of their persons. The women used gold and silver brooches studded with semi-precious

stones like agate, carnelian or jasper; they wore gold earrings consisting either of simple loops or made more elaborately and decorated with cupids, small pendants in semi-precious stones, or carved in filigree and sometimes they were studded with carnelian; they wore finger-rings in gold, silver or bronze set with carnelian or milk agate intaglios carved with deities or other motifs. They decked themselves with bracelets in gold, silver, bronze or glass and necklaces strung with gold, silver, amethyst, carnelian and glass beads. They also used hair pins made of bone, with the head sometimes carved either with the figure of some god or goddess or the bust of some warrior.

Jewellery was kept in a wooden box inlaid with ivory or bone, carved with figures of dancing girls or sometimes with obscene designs. Of the other objects usually made of bone mention may be made of flutes; cymbals and castanets were generally made of bronze.

Finally, the Roman Period in Palestine is noted for the large number of inscribed monuments such as milestones, boundary marks and dedicatory inscriptions. But the most sensational discovery in palaeographic material is the discovery of the now famous Dead Sea Scrolls which were found in caves above Khirbat Qumran at the north end of the Dead Sea. The scrolls contain the earliest manuscripts of the Old Testament that we have including a complete scroll of the Book of Isaiah and fragments of most of the other books. Apparently they were left there by the Essenes who shared some of the tenets of the early Christians.

Chapter XIII

A BULWARK OF CHRISTIANITY

Palestine during the Byzantine Period

The Edict of Milan in A.D. 312, which gave official sanction to Christianity, and the shift of the capital from Rome to Constantinople did not of themselves bring about an abrupt change in the essence and substance of the arts of the Roman world; yet these events did lay the seeds for the drastic changes which developed over the years and which stamped the Byzantine Age with its unmistakeable characteristics. It is true that the changes occurred gradually, but the sum total of the developments that occurred started to be apparent with the passage of time. For example, there is little difference between the arts of the Early Fourth Century and those of the Late Fourth or even Early Fifth and what difference there was developed by slow degrees so as to be hardly perceptible. It was therefore essential to trace the starting point of these developments and changes and archaeologists have arbitrarily hit on the foundation of Constantinople for the beginning of the Byzantine Period because it has a sound historical if not a cultural basis. The Byzantine Period ended in Palestine with the occupation of the country by the Arabs during the first half of the Seventh Century although in Asia Minor it continued for several centuries after that.

The Byzantine Period in the Near East witnessed the final triumph of Christianity. The persecutions of the Third Century were brought to an end

and, with the reign of Theodosius, the tables were turned and paganism was brought under heavy pressure which culminated in the closure of the Academy in Athens, its last intellectual stronghold, during the reign of Justinian. It is only natural that the culture of the age should be strongly influenced by the tenets of the new faith. The influence is perhaps perceptible most in architecture and from that point of view at least one can say that the face of the country underwent a marked change.

Just as the Roman Period is notable for the great monoliths with which the public buildings of the age were constructed, so the Byzantine Period, by contrast, is notable for the relatively small size of the masonry which was used in construction. The stones used hardly ever exceeded 70 cms. in length or 45 cms. in height; the surface was very smoothly dressed, and marginal drafts almost entirely disappeared. The order of architecture used was mostly the Corinthian with some slight modifications in the decoration and carving of the capital, where in addition to acanthus leaves, basket patterns were added and the cross starts to figure prominently in the decoration of the top of the capital.

The most common type of building during the period was naturally the church. Hitherto Christians had been in the habit of meeting in private houses; but with the official recognition of the faith, special places of worship were constructed modelled on the basilicae or courts of justice of the Roman Period. The churches were generally orientated east-west. The size of the church varied with the size of the congregation of the town or village in which it was erected.

The essential features of the plan of the church were an atrium or forecourt at the front, which led into a narthex or vestibule at the west end of the church. The narthex in turn led into the church proper which consisted of a central nave, two lateral aisles and a chancel at the east end of the church. The atrium was a paved court enclosed within an arcaded walk or cloister on three sides, the north, west and south, while the church stood normally on the east side. One or three doors, depending on the size of the church, led from the atrium into the narthex, which was cut off from the rest of the church by a wall pierced by one or three doors. The narthex was intended for the catecumens or unbaptized converts, who were not allowed within the church until after initiation through baptism. In the larger type of church the interior of the church was divided into three aisles, by two arcades, running along the longitudinal axes of the building; the central aisle or nave was considerably wider than the two lateral aisles which were only used for ceremonial processions. The chancel stood at the east end of the church and was often provided with a semi-circular apse. The chancel was divided from the nave by a screen about a metre high, and generally built of marble slabs set between chancel posts, the top of which were carved like onions. The chancel sometimes projected into the body of the church and included more than just the area enclosed within the apse. In some of the larger churches, there were in addition to the central chancels, two lateral apses, facing each of the lateral aisles, the apse on the north being used for preparing the sacrament and was called the prothesis; the apse at the end of the

south was the sanctuary in which the deacon officiated at the less important services and hence called the diakonikon. In each of the three apses there was a small altar consisting of a marble-topped table supported on slender columns. Around the altar of the central apse there was a stone bench for the clergy with a throne in the middle for the bishop. In those churches where reliquaries were kept, the relics were generally placed in a small marble casket under the altar.

The floor of all parts of the church was paved with mosaics according to a common pattern which was however liable to slight variations. The atrium was usually paved with large white tesserae; two rows were set along the edges and then the other tesserae were placed diagonally between them. The narthex was paved with a white surround, a border of rows of black tesserae and a field decorated with a scale pattern in red and black over a white background; in the middle of the field of each scale there was a sprig or arrow-shaped design in black and red. The floor of the nave had a white surround, a border consisting of an interlacing or guilloche pattern in red, pink, black, grey, and two shades of brown, enclosed within two rows of black tesserae, and a field consisting of a vase at the west end from which vine branches sprouted and formed circular medallions spreading all over the nave; an animal or a bird was set within each medallion. The colours used were numerous and at times included as many as fifteen different ones such as white, black, various shades of red, brown, blue, green and yellow. A dedicatory inscription in black tesserae, placed within a tabula ansata was sometimes laid either in front of the chancel or in the surround

immediately inside the central door of the church. The floor of the apse normally consisted of a white surround, a narrow guilloche border, and a white field decorated with single sprigs or with a combination of four sprigs set tip to tip so as to form a cross. The church was generally roofed with terra cotta tiles, resting on a timber frame.

In some churches, the animals and birds were deliberately removed during the period of the Iconoclastic controversy in the Eighth Century and replaced by floral designs. The alteration was sometimes so clumsily done that it was often possible to detect the kind of bird or animal removed.

As examples of this type of church one may cite the Church of the Nativity in Bethlehem and the churches at Ein al Hanniyeh near Beit Safafa, Khirbat Asida near Beit Umma and Tell Hassan near Jericho. The three churches in question were excavated by the present author.

The church at Ein Hanniyeh consisted of a roughly square atrium surrounded by a colonnaded cloister on all four sides, the east side of the cloister forming the narthex. Three doors, led from the narthex into the church; the central door led into the nave while the two others led into the lateral aisles. The floor of the narthex was paved with a white surround which was decorated with Greek crosses with indented arms; the border consisted of two rows of black tesserae enclosing two rows of white, while the field was paved with a scale pattern, each scale containing a sprig. The interior of the church was divided into three parts, a central nave and two lateral aisles separated from

the nave by an arcade running along the length of the church. The nave was paved with mosaics consisting of vine-branches with bunches of grapes, leaves and tendrils, forming circular medallions. The vine-branches presumably sprouted from a vase at the west end of the church but the mosaic was destroyed in that section of the nave. Within each medallion, there were presumably animals and birds and there was one medallion which contained a basket of fruit. The animals and birds were removed and replaced with white tesserae. The border consisted of interlacing ropes in various colours.

A chancel screen consisting of marble slabs set between colonnettes separated the nave from the chancel. The apse was semi-circular. Around the inside there was a stone bench and in the middle there was an altar. Under the altar there was a casket in which human bones were found, no doubt the relics of some saint.

The south aisle was paved with a scale pattern containing sprigs set within a border of rows of black and white tesserae like the narthex. At the east end of the aisle there was a square recess, the diakonikon, with an altar in the middle. The north aisle was paved with idented squares set in a border of rows of black tesserae. At the east end of the aisle there was a square recess, which served as the prothesis. In the middle there were the vestiges of a rectangular altar. The floor of the prothesis was paved with white tesserae ornamented with Greek crosses.

The church of Khirbat Asida was slightly different. For one thing there

was no trace of an atrium. One door leads into the narthex which was paved with a scale pattern in mosaics. One single door communicated between the narthex and the nave; there were no other doors between the aisles and the narthex as at Ein al Hanniyeh. Internally the church was divided into one nave and two lateral aisles, but there was no diakonikon or prothesis at the east end of the church. The mosaic pavement in the nave consisting of a white surround, a guilloche border and a field at the west end of which there was a vase from which vine branches sprouted forming circular medallions which contained animals and birds, which were deliberately transformed into stylized plants during the Iconoclastic Period, yet it was possible to detect a lion and a chick from the original pavement. The mosaics in the apse were destroyed.

Of the church at Tell Hassan only parts of the mosaic pavement were discovered, together with a short stretch of wall on the north side as well as the plinths of the bases of the columns. The mosaic pavement in the north aisle consisted of geometrical figures including two crossing squares forming eight-pointed stars, circles and ovals. The mosaic in the south aisle consisted of a wicker tray pattern. In both the north and south aisles the pattern is elaborate and several colours were used. By contrast the mosaic pavement in the nave is simple and consisted of indented squares in three colours. There is evidence however that the mosaic in the nave replaced an older more elaborate pattern parts of which were still found in the intercolumniations.

The most important Byzantine Church in Palestine still standing is the

Church of the Nativity in Bethlehem which was constructed during the reign of Constantine. The Church had a large atrium in front enclosed by an arcaded cloister. The atrium has mostly disappeared but some of the column bases may still be seen on the north side. Excavations in the mid-thirties of this century have also exposed other elements of the atrium under the present fore-court. The atrium led into a wide narthex, which is now cluttered up by partition walls and rooms. The narthex led into the interior of the church by five doors, four of which are now blocked up. The interior of the church is divided into a central nave and four lateral aisles. Originally the interior was paved with mosaics in floral and geometrical patterns, but by the reign of Justinian the mosaics were so badly dilapidated that a new pavement of marble flags was laid over them. At the east end of the church there was a chancel in the middle and a prothesis and a diakonikon at the end of the inner north and south aisles respectively. In front of the chancel there were steps leading into the Grotto of the Nativity but these are now covered up, and a roof was built over the Grotto.

During the reign of Justinian some modifications were introduced including the addition of two semi-circular transepts at the east end of the church in order to make it cruciform in plan. The other changes which have already been noted, include the repavement of the church with marble flags and the construction of the vault over the Grotto of the Nativity.

The church, apart from the changes introduced by Justinian has essentially remained the same as at the construction by Constantine. However

the elaborate door between the atrium and the narthex has undergone some changes. During the era of the Crusaders the door was reduced in size by inserting a pointed arch in the original Byzantine door, and later still a small low door was inserted within the Crusader arch in order to prevent animals being introduced into the narthex.

It would be of interest to quote here a treatise on "How to Build a Church" written in the Fifth Century and preserved in a Syriac version. The treatise reads as follows:

> "I will tell you, then, how a sanctuary ought to be; then I will make known unto you the holy care of the priests of the church.
>
> "Let a church then be thus: with three Entries in type of the Trinity. And let the Diakonikon be to the right of the right hand entry, to the purpose that the Eucharists, or offerings that are offered, may be seen. Let there be a Forecourt, with a portico running round, to this Diakonikon. And within the room (or "in the middle of") the Forecourt let it have a house for a Baptistery, with its length 21 cubits for a type of the total number of the prophets, and its breadth 12 cubits for a type of those who were appointed to preach the Gospel; one entry; three exits.
>
> "Let the church have a house for the catecumens, which shall also be an Exorcisterium (lit "House of Exorcists"), but let it not be separated from the church, but so that when they enter and are in it they may hear the readings and spiritual doxologies and Psalms.

"Then let there be the Throne towards the east; to the right and to left, places of the presbyters, so that on the right those who are more exalted and more honoured may be seated, and those who toil in the word, but those of moderate stature on the left side. And let this place of the throne be raised three steps up, for the Altar also ought to be there.

"Now let this house have two porticoes to right and to left, for men and for women.

"And let all the places be lit, both for a type and for reading.

"Let the Altar have a veil of pure linen, because it is without spot.

"Let the Baptistery also in like manner be under a veil.

"And as for the Commemoration, let a place be built so that a priest may sit, and the archdeacon with readers, and write the names of those who are offering oblations, or of those on whose behalf they offer, so that when the holy things are being offered by the bishop, a reader or the archdeacon may name them in this commemoration which priests and people offer with supplication on their behalf. For this type is also in the heavens.

"And let the place of the priests be within a veil near the place of commemoration. Let the House of Oblation and Treasury all be near the Baptistery. And let the place of reading be a little outside the Altar. And let the house of the bishop be near the place that is called the Forecourt. Also that of those windows who are called first in standing.

That of the priests and deacons also behind the Baptistery. And let the deaconesses remain by the door of the Lord's House. And let the Church have a Hostel nearby, where the archdeacon may be receiving strangers."

Sculpture during the Byzantine Period went through a great deal of stylization and conventionalization which greatly affected its quality. The cross figured prominently on altars, chancel screens and mosaic pavements and stylized vine patterns were also very numerous. The columns used in architecture were small, monolithic and plain; they were generally quarried out of pink limestone from a quarry near Bethlehem. This type of stone lent itself to a high polish. The bases were moulded and the capitals were usually made of Proconesian marble and carved with acanthus leaves and basket patterns. The columns rarely exceeded 3.50 m. in height and thus contrasted sharply with the gigantic columns of the Roman era.

During the period under discussion, the dead were buried in rock cut chambers. Access was by means of a small door which opened into a square room, with a sunken floor immediately inside the entrance; three graves were then sunk in the rock along the three sides of the tomb, the side in which the door of the cave was situated being excluded. The rock above the grave was cut in the form of an arch. After use the graves were generally sealed with square slabs. Examples of this type of burial chamber which are called arcosolia have been found in many places in Palestine.

During this period pottery vessels were made in every conceivable form

and the approximate date of any vessel is deduced more from the way it was made and principally from its external decoration or finish rather than by its form. Practically all vessels, no matter how small, were ribbed with coarse ribs on the outside. In the early stages of the period there is little to distinguish between this ribbed pottery from that of the Late Roman Period, but as from the middle of the Fifth Century, the ribs get so coarse and square in section that they become easily distinguishable. Forms include jars in which the ribs sometimes measure about one centimetre in width, jugs, juglets, bowls, plates, saucers, cooking pots and the lachrymatories. The lachrymatories became particularly degenerate that they ceased to be made on the wheel, but like lamps, it was found quicker to mass produce them by making them in two pieces in moulds and sticking them together. A word perhaps should be said about a peculiar kind of lentoid vessel which is known as St. Minas Pilgrim Bottle. It is a pilgrim bottle made in moulds in two pieces, then stuck together; it bears on both sides the saintly Minas, whose shrine was visited by a large number of pilgrims and who as a memento of the visit and as a blessing from the holy well there, carried away with them some of the water in this type of flask.

The degeneration which we witnessed in the ceramic industry was further carried into the lamp industry. The new lamps lost their circular form and became elongated. Decoration degenerated into meaningless radial strokes around the discus. A slipper-shaped lamp was produced in great quantities. The surface between the nozzle and the feeding hole was decorated with a highly stylized

seven-branched candle-stick which degenerated in the later period into a meaningless design that looked like a palm-branch. The candle-stick was sometimes replaced by a small cross. A form of this lamp, which started appearing sometime in the Fifth Century, had a Greek inscription around the discus which read ΦΩΣ ΧΥ ΦΕΝΙ ΠΑCIN ΚΑΛΗ or "The light of Christ shines forever well". This formula by frequent copying in the hands of illiterate potters degenerated in time into a meaningless and an illegible ornamentation. Some of these lamps had loop-handles at the end opposite the nozzle with a large cross above them.

The Byzantine potters also made terra cotta lanterns in which the lit lamps were carried at night. The lantern was a cylindrical box with a rounded top and an opening on one side. A loop was attached at the top for carrying.

It is not difficult to seek the causes in the degeneration of the ceramic industry during the Late Roman and Early Byzantine Period. The first cause is mass production. The civilized world had increased considerably in size, and the prosperity of the times in general led to a greater number of people using the vessels at hand; this led to mass production and carelessness in execution. Potters were more interested in the greater amount of pottery produced than in its quality. They stopped taking pride in their workmanship. Secondly, the invention of blown glass led to a greater output of vessels in that material which was preferred to pottery by the wealthier inhabitants of Palestine.

As we stated when discussing the pottery of the Roman Period, pots

ceased to be the chief criterion for dating. Coins which were struck in ever increasing numbers became a more accurate and more precise yardstick of chronology. The three centuries of Byzantine civilization in Palestine witnessed a great variety of coin issues. The gold coins are easy to identify because of the clear letters with which the emperors' names were inscribed in the margin, but the copper coins, unless they are well preserved are sometimes very difficult to decipher.

The gold coins of Constantine the Great and his immediate successors were struck on the obverse with the bust of the Emperor in profile facing left, and his name and titles inscribed on the margin. On the reverse there is a figure of Victory standing towards the right writing on a shield set over a column; in the margin runs the inscription VOTIS..MVLTIS...and at the bottom of the coin (in exergue) the mint. The reverse later was changed to a figure of the Emperor in full military dress, standing facing, holding in his right hand a standard inscribed with the monogram ☧ and in his left hand a statue of victory standing on a globe. The inscription in the margin reads: RESTITVTOR REIPVBLICAE. The obverse of the bronze coins is similar, but in the reverse a large variety of subjects was used. One of these depicts a camp gate with an arched entrance surmounted by two legionaries, and a marginal inscription reading PROVIDENTIAE AVGG. Another reverse shows a laurel wreath within which is an inscription reading VOT.XX and a marginal legend reading DNCONSTANTINI MAXAVG. In addition there were reverses depicting two legionaries standing confronted

on either side of two standards, each helmeted, cuirassed and holding spear and round shield. The inscription in the margin consisted of the legend GLOR IA EXERCITVS. In celebration of the foundation of Constantinople two commemorative coins were minted. One was struck on the obverse with a bust of Roma helmeted, draped and cuirassed, facing left and inscribed on the margin with the legend VRBS ROMA, and on the reverse there was the figure of the she-wolf suckling the infants Romulus and Remus. The second coin had on the reverse a bust of Constantinopolis helmeted, draped, cuirassed and holding a cruciform sceptre, looking towards the right and inscribed in the margin with the legend CONSTANTINOPOLIS; on the reverse there was a figure of Victory, winged and standing towards the left, holding in her right a sceptre and resting with her left on an oval shield; her right foot rested on the prow of a galley.

Reforms in the currency were introduced by Anastasius who introduced large bronze coins struck on the obverse with the bust of the emperor, either in profile or facing, and large Greek letters on the reverse indicating the value of the coin; the letter M stood for 40 folles, K for 20 and I for 10.

After the reign of Anastasius most of the bronze coins were struck with the bust of the Emperor facing, rather than in profile. The emperor wore a helmet and a cuirass, and held in his right hand a globe surmounted by a cross (globus cruciger) and in his left a shield decorated with a horseman striking a fallen enemy.

Justinian after A.D. 528 added regnal years on the reverse making it

possible to date coins very accurately. The mint is generally indicated at the bottom of the coin. The notable mints were Constantinople, Cyzicus, Nicomedia and Antioch (Theupolis). There is a definite decline in the numismatic art in the Byzantine Period, which starts with Constantine and continues right down to the end of the Byzantine Empire. The features of the emperor become coarser, the legend around his head becomes less and less legible, and during the reign of Maurice (A.D. 582-602) the inscription was hopelessly garbled in the mint at Antioch.

The glass vessels produced in Phoenicia during the Byzantine Period tend to become thicker than those of the Roman era, but the variety of forms is just as great. There were unguentaria, mostly double, "candle-stick vases", bottles, bowls, hanging lamps, plates and saucers. The colour most preferred was green, but blue, purple and cream were not uncommon. Ornaments in glass were even greater than in the Roman Period and include beads, bracelets and settings for finger rings.

Of the common objects in bronze, besides vessels, there were censers for use in churches, consisting of a bowl suspended from three chains attached at the other end to a ring ornamented with a cross soldered at the top. The crosses mostly used by the early Christians had their arms widest at the ends, tapering slightly to the point of intersection; they were generally decorated with five circles, one at the centre and one on each arm.

There are no less than 2500 Byzantine ruins in the country in most of

which churches have been discovered indicating that the Christian population of Palestine was very large. By contrast only a few synagogues belonging to this period have been found. This suggests that a large number of Jews were converted to Christianity during the Roman and Byzantine Period. The appearance of the seven-branched candle-stick on the lamps of the Fifth and Sixth Centuries indicates that a large number of Jews were actually converted to Christianity retaining some Jewish symbols in their art.

Chapter XIV

THE ARCHAEOLOGY OF ARAB PALESTINE

1. Palestine under the Early Arabs

Unified by the Prophet Muhammad and inspired with new zeal, the Arabs of Arabia for the first time in their history developed a national consciousness and sublimated their frequent intertribal conflicts and proclivity for fighting among themselves into an invasion of the rich territory of their neighbours, the Sassanians and Byzantines. The Battle of the Hieromax (al Yarmuq) sealed the fate of the Byzantine Empire in Syria and Palestine and Jerusalem fell in A.D. 636.

The Arabs were over-awed by the Helleno-Syrian civilization which they witnessed in Palestine. Apart from a few among them who had visited the country with the trading caravans, the Arabs were not familiar with the refinements of the Helleno-Syrian civilization. At the time there were no architectural traditions in Arabia worth mentioning nor did they possess monuments of any importance. Furthermore they led a very simple and austere life in Arabia and were satisfied with very little. It is true that a magnificent civilization had developed in the Yemen as early as the Eighth Century B.C., yet after the diversion of trade by sea and the abandonment of the caravan route across the desert in the First Century B.C. Yemen was hit by a severe calamity, and its civilization declined precipitously.

At the outset, the Arabs looked with disdain on the Byzantine way of life which they considered effeminate and lacking in vitality. Byzantine manners

and customs contrasted sharply with their virility and simple way of life. The Arabs preferred their own simple life to the complicated manners and customs of their subjects in spite of the fact that it lay within their means to indulge in luxury and to erect imposing monuments such as palaces and mosques rivalling in splendour the edifices of the Byzantine emperors. Maysun the wife of Mu'awiya, the first Umayyad Caliph, perhaps echoed the views of most of her compatriots when she said:

"A tent with rustling breezes stirred
Delights me more than palace high,
And more the cloak of simple wool
Than robes in which I learned to sigh".

The early mosques built by the Arabs consisted of a rectangular plot of ground, around which a shallow trench was dug and part of the plot only was roofed with reeds and mud.

With the accession of Abdul Malek ben Marwan in A.D. 685 there was a radical change in the attitude of the Arabs towards the refinements of the Helleno-Syrian civilization. The Arabs were no longer content to live the life of desert Arabs and proceeded to erect monumental buildings in order to show their alien subjects and their neighbours that they were capable of erecting mosques and palaces rivalling in their magnificence the churches erected by their predecessors, the Byzantine Emperors, Abdul Malek b. Marwan and his sons, who were deeply impressed with the Christian Churches in their dominions proceeded to erect great mosques and palaces, lavishly decorated in good taste. They introduced Byzantine and Sassanian architects and craftsmen to help them.

The most notable of Abdul Malek's structures is the Dome of the Rock in Jerusalem. The Dome of the Rock is considered the third holiest shrine in Islam after the mosques of Mecca and Medina. Abdul Malek constructed the Dome of the Rock as a rival to the Kaaba at Mecca, in order to divert Moslems to Jerusalem. Mecca and Medina were held at the time by his rival Abdullah b. az-Zubeir.

In its harmonious setting, in its graceful proportion and in its lavish but discreet decoration, it is perhaps the most beautiful monument in the world. The Dome is constructed over a raised platform set within a large rectangular esplanade. It is built on an octagonal plan and is entered by four doors, each of which faces one of the points of the compass. The lower part of the walls is at present faced with marble and the upper part with glazed tiles, which however do not belong to the original structure.

Inside, two parallel rows of marble columns surround the bare rock. The upper part of the wall, including the spandrels of the arches, are lavishly covered with mosaics, which depict floral patterns on a gold background. At the bottom of the Dome there is an inscription in the Kufic Arabic script which dates the construction of the Dome to A.D. 691, but the Abbasid Caliph Abu Ja'afar al Mansur removed the name of Abdul Malek and replaced it by his own, without however altering the date. Abdul Malek also solved the water-supply problem of the city of Ramleh by building a large cistern known at present as Birket al Uneiziyeh. The cistern is an imposing structure. It is roofed with a

series of parallel barrel vaults carried on arches.

Walid ben Abdul Malek erected a large mosque, known as al Masjed al Aqsa, at the south end of the Haram enclosure. The mosque is unlike any other mosque in that it is built on the basilica plan. The mosque is built on a long axis and is divided into seven aisles by a forest of columns of the Corinthian Order. Walid's mosque was considerably shorter than the existing one as additions were made to it on the north side during the Fatimid and later periods. At the south end of the mosque there is a mihrab or niche. The south part of the mosque has not changed much since Walid's days. The original mosque was lavishly decorated with mosaics, but only a small part of these remains on the south wall of the mosque and in the dome above the mihrab.

The Umayyad Caliphs built two palaces in Palestine, one at Khirbat al Minieh, on the shore of Lake Tiberias and the other at Khirbat al Mafjar in the Jordan Valley three kilometres north of Jericho.

Hisham's palace at Khirbat al Mafjar consists of three large buildings, a residential palace, a mosque and a bathing establishment. The three buildings were constructed along the side of a large rectangular forecourt measuring 306 m. in length and 40 m. in width. The forecourt is surrounded by a colonnaded porch on three sides the north, the east and the south, while on the west it is bounded by the afore-mentioned structures. The gate, which is set between two quarter round towers, was on the south side. In the middle of the forecourt there was an ornamental fountain, which in general conception and design resembles the

Dome of the Rock in Jerusalem. There were eight piers arranged on an octagonal plan enclosing four other L-shaped piers which supported a dome. The whole was set inside a square pool. The jet of the fountain was under the dome in the middle of the pool. It was lavishly adorned with colonnettes and small arcades.

The facade of the residential palace, the first building west of the forecourt after the gate, is decorated with colonnaded porticos in two storeys extending from one end of the palace to the other. In the porticos on the upper floor there was a balustrade of plaster carved with colonnettes supporting a small arcade in two registers.

The entrance to the residential palace is set between two square towers. Along both sides there were seats with elbow rests for the guards, while the upper portions of the wall were decorated with niches surmounted by niche-heads decorated with floral patterns and cornuacopiae. The roof of the gateway consisted of a cross vault decorated with piping on the soffit, while the arch at the facade was a multiple arch decorated with a series of small niches. The spandrels of the arch were decorated in relief with a guilloche pattern copied from the mosaic borders of Byzantine churches.

The door at the end of the gateway was spanned by a flat lintel presumably surmounted by a relieving arch. The lintel consisted of three stones, a hexagonal stone in the middle and two oblong stones which were joggled on either side of it. Both the lintel and the door jambs were splayed inwards and were divided into square panels each of which was carved with a different Arabesque

design.

The door leads into a monumental entrance hall which was roofed with two cross vaults resting on six clusters of columns, one at each corner and another against the middle of each wall. Between the columns there were seats with elbow rests. The walls of the hall were covered with plaster which was carved at the bottom with floral and geometrical patterns and at the top with a multitude of male busts. There was also a carved stucco niche placed between the heads in which a semi-nude female stood holding a bouquet of flowers in each hand.

The entrance hall leads into a large central court, surrounded by cloisters on all four sides, separated from the Central Court by a raised step and arches resting on red limestone columns.

In the middle of the south wing of the palace there was a small mosque with a small mihrab and a minaret at the back. This was probably the private chapel of the Caliph. Two long rooms flank the mosque on either side.

The west wing of the palace was the residential quarter of the Caliph. It consisted of a long reception hall in the middle, divided for the purpose of roofing, into two bays. There were six rooms on either side of the reception room and two large square rooms one at either end of the wing.

The north wing consisted of one large hall, about 30 m. long and 11 m. wide which was probably used for banquets. It is divided into several bays by a row of piers along its central axis and corresponding pilasters ranged against

either side of the hall.

On the east side there were sixteen rooms, eight of which opened on to the east cloister and the eight others opened on to the portico in the facade of the palace; there was no communication between the two sets of rooms. The upper floor was completely destroyed, but the marble columns of the upper cloister and the carved stucco balustrades between the columns were found in the debris on the ground floor. There were also fragments of mosaic pavements with which the rooms in the upper floor were paved. A large rose window, now re-assembled and set in the middle of the central court, adorned the hall on the upper floor built over the reception hall on the ground floor. Also the beginning of the two sets of stairs, which led up to the upper floor, were found in the north-east and southwest corners of the palace.

The walls of the rooms on the upper floor were plastered and painted with frescoes. A large number of stones, which were found in the debris fallen from the destroyed upper floor, were painted with human figures.

Below the reception hall in the west wing, there was a bath with a barrel vault. It had at the east end a large tub and there were two wall arches on either side. The floor of the forepart of the bath is paved with mosaics as well as the floor of the two alcoves under the wall arches.

At the extreme west north end of the west cloister there were stairs leading up to a door, which in turn opens on to a covered passage which led to the baths and a sheltered walk at the back of the palace leading to a stairway.

The stairway splits into two at a common landing, one set of stairs leads up to the roof of the palace and the other descends towards a door leading into the back of the mosque by means of a protected passage.

The mosque has a small mihrab flanked by two columns on either side. Only the south part of the mosque was roofed with vaults carried on two transverse rows of columns and pilasters. The remaining part, comprising about three fifths of the area of the mosque was open. At the north end of the mosque there was a vestibule from which three doors led into the mosque.

The bath at the end of the covered passage was built more for diversion than for cleansing. It had two entrances, one on the south side that leads directly into the palace by means of the covered passage just discussed and was presumably used by the Caliph and his immediate retinue while the other, the main entrance, opened on to a small court communicating with the forecourt by means of a wide door on the east side.

The bath consists of a square structure, with three large recesses on each of the north, east and west sides and a gateway flanked by a recess on either side on the east side.

The gate of the bath is set within a square tower roofed with a dome and decorated on the facade with niches in which among other things there is a plaster statue of the Caliph standing over two lions, painted to emphasize the features. Another statue represents a fully armed soldier. At the bottom of the dome, there is a row of seated sheep in painted plaster and in each squinch there is a

figure with upraised arms set within a floral border all in plaster. The door is spanned by a multiple arch.

The main hall of the bath is divided into several bays by sixteen massive piers, each consisting of four engaged columns at the corners and four pilasters in between them. At the south side of the hall, there was a pool screened off from the main hall by a partition; steps lead up from the hall to the edge of the pool.

The tepidarium lay to the north of the hall. A door in the northwest recess opens on to a room with benches along the sides. Another door leads into a room on the north side with three bath tubs. A second door in the same room leads into the calidarium, which consists of two rooms, one square and the other circular and provided with eight niches for privacy. The walls of the niches were covered with glass mosaics. The hypocaust collapsed, but the bricks which held the floor of the room above the hypocaust were found in position.

There was a room at the northwest corner of the hall which consisted of a square room with an apse at the north end. The room was provided with seats along the east and west sides and the section below the semi-dome of the apse was raised to the level of the seats. The square part of the room was roofed with a dome and the apsidal part was roofed with a semi-dome. The square room and the seats were paved with mosaics forming geometrical patterns. The apse was also paved with mosaics representing a stylized pomegranate tree. On the right of the tree there were two gazelles browsing, while on the left a lion ravages a third gazelle. The walls of the room were covered with carved plaster. The

walls were carved with geometrical patterns set within a border of floral designs. The plaster on the soffit of the dome was carved with a large rosette with six petals set within a floral pattern of open work. Between each pair of petals there were six alternating heads three male and three female.

A door in the northeast corner of the hall leads into a public latrine which has a bench all round with slots for the users. It was flushed with water coming from the residue of the water in the pool.

The hall is paved with mosaics; each bay or recess is paved with a different pattern mostly geometrical. The middle bay of the hall is paved with a design representing a large coloured wicker tray with a ribbon-like border. The middle recess on the west, has in addition to a geometrical pattern, two panels in one of which there is the picture of a knife and in the other some fruit.

The walls of the recesses are decorated with niches and the upper part of the hall, which is built of bricks, is painted with various designs.

The palace was fortified on the outside by a number of towers. There was a round tower at each corner and a half-round tower against the walls on the north and west. On the south side, behind the private mosque, there was a square tower which carried the minaret.

The palace at Khirbat al Minieh is built on a similar plan. It consists of a roughly square building with a round tower at each corner, and a half-round tower against the north, south and west walls. The gate is set within an elliptical tower on the inside with two niches, one on either side. Some rooms on the

ground floor are paved with mosaics instead of concrete as at Mafjar and ascent to the upper floor was by means of a ramp instead of a stairway.

The coming of the Arabs not only introduced glazed pottery into Palestine but saw a great improvement in the unglazed ware as well. When the Arabs occupied Iraq and Persia they learnt there the manufacture of glazed pottery and introduced it to the various parts of the Arab Empire. They made large jars at the outset and glazed them blue or green and bowls and other smaller vessels which were decorated in relief and glazed over in green. But in Palestine in addition potters retained the tradition of ceramic technique of the Byzantine Period and introduced some changes to offset the decline in the ceramic industry of the earlier period. For example in the case of storage jars, there is little to distinguish between Byzantine and Umayyad jars. Byzantine jars had a round base, a short neck and two loop-handles set at the shoulder; but the Umayyad jars had, in addition, designs painted in white on the shoulder and on the body over a brown slip.

The Umayyads were very lavish in the decoration of their bowls. These generally have a rounded base and almost upright walls. They were painted with a multiplicity of designs including scale-patterns, stylized floral patterns, geometrical designs and a combination of the three.

Similarly they had saucers or plates treated in the same manner. The designs were generally painted, but in some cases they were incised.

A new type of bowl, which was introduced during the Umayyad Period,

is a shallow cylindrical bowl with a flat base and upright walls. This type of bowl is deeply incised with geometrical designs (Kerbschnittmuster) which remind one of the Union Jack. It is known among archaeologists as the "Union Jack Ware". In addition some of the incised parts are filled with dark red or blue paint.

Another variety of bowl that made its appearance during the Umayyad Period is a bowl incised with a criss-cross pattern.

The cooking pots of the Umayyad Period differ from those of the Byzantine in two ways. First, they are neckless and have a hole-mouth opening at the top; secondly the handles are attached horizontally and not vertically as in their Byzantine counterparts.

Umayyad lamps stem from the slipper-lamps of the Byzantine Age but there is a sharp distinction between the two. In place of the candle-stick or cross pattern between the nozzle and the feeder there is a shallow groove in the lamps of the Umayyad Period. Also instead of the radial bands around the discus Umayyad lamps are generally decorated with a floral pattern in slight relief, often consisting of a vine branch from which sprout vine-leaves or bunches of grapes. At the end of the lamp there is a knob-like handle. The bottom of the lamp is more oval and less round than the Byzantine counterpart.

In the manufacture of glass Byzantine traditions continued for a while but in glass the Arabs found a medium which they could appreciate. They decorated their vessels with strands of colour different from the original vessel.

The Abbasid Period is noted for the large output of glazed pottery.

Different types of glazed ware started making their appearance in Persia and moved from Persia to other parts of the Arab Empire including Palestine.

The earliest type is the so-called graffiato ware. In this ware designs were incised and filled with black or brown lines; the glaze was later added in different colours with the yellow and green prevailing. At about the same time lustre glazing made its appearance. Pots were decorated with human beings, animals, birds, floral and geometrical figures in gold or light brown and a highly lustrous glaze was added.

A school of ceramicists made its appearance at Fustat near Cairo, where glazing in different coloured strands appeared on the vessel without fusing into each other. The ware in question was highly popular during the Fatimid Period.

With the arrival of the Seljuks yet another type of glazed pottery made its appearance. The chief feature of this pottery was the carving of animals and floral patterns on the surface of the pot in relief and the addition of a glaze over it.

Sometime in the Twelfth Century a new school started at Raqqa where the vessels were glazed in blue and over painted with floral patterns or Arabic inscriptions in black culminating in the Sixteenth Century with the addition of red.

Although the various types of glazed pottery appeared in areas outside Palestine, yet the Palestinian potters soon started to copy them and there were several factories established in Jerusalem which produced one or other of these types.

Similarly with the unglazed pottery, there were new forms that made

their appearance during the Abbasid Period. Among these, was the barbotine ware, which consisted mostly of jars generally of yellowish creamy ware, which were decorated with geometrical patterns applied on the surface. In addition incised lines were added in many cases.

Ribbed storage jars continued in production but they ceased to be painted.

Bowls are generally combed below the rim with wavy or straight horizontal lines.

Pilgrim bottles provided with several collars on the neck and handles attached on the shoulder are very common after the Ninth Century. At a later date, they were made in two moulds and afterwards stuck together. Sometimes they were ornamented with Arabic inscriptions but more often with geometrical patterns.

A common vessel, which appeared in the Ninth or Tenth Century, is a jug made in two moulds which were later stuck together. It was decorated in very low relief with palmettes enclosed in ovals, squares set diagonally, large circles and other designs.

A type of pottery which is still made at Sinjil 37 kms. north of Jerusalem is so crude that it has often been mistaken for Neolithic ware. It is made of thick soft ware and crudely painted with meaningless abstract designs. It must have started in the Twelfth Century and its use was very common.

Glass underwent some changes and a large number of cups were made

which were decorated with Arabic inscriptions around the rim. In some cups the top part was enamelled with floral motifs or Arabic inscriptions.

Before dismissing the Early Arab Period mention must be made of the use of the floral Arabic script in decoration. Arab inscriptions, combined with highly stylized geometrical and floral patterns, which came to be known later as Arabesque, can be highly ornamental and lavish use was made of this, not only on pottery but also in dedicatory ornamental inscriptions. Verses of the Qur'an, inscribed around the walls of mosques and tomb-stones can be very highly ornamental.

When the Arabs captured Palestine they continued to use Byzantine coins for a while and indeed they struck crude Byzantine coins themselves with the most weird shapes. Later they struck coins of the denomination of forty folles with the effigies of Byzantine emperors on the obverse, a large letter M on the reverse together with the name of the mint in Arabic and Greek. Such coins were struck at Baalbek, Damascus, Homs, Tiberias, Amman and elsewhere. Later still the effigies of the Byzantine emperors were replaced by a figure of the Caliph wearing the kufiyeh and inscribed with formulae from the Qur'an.

In A.D. 696 the Caliph Abdul Malek ben Marwan instituted monetary reforms. Gold dinars, silver dirhems and bronze fulus were minted with religious formulae on the obverse and the reverse. The gold dinars for example were inscribed in the field with the article of faith in three lines as follows:

لا اله الا
الله وحده
لا شريك له

The inscription in the margin read:

محمد رسول الله ارسله بالهدى ودين الحق
ليظهره على الدين كله

On the reverse, the dinars were inscribed with some verses of the 112th chapter (sura) of the Qur'an arranged in three lines as follows:

الله احد الله
الصمد لم يلد
ولم يولد

The date of the coin was inscribed in the margin and read as follows:

بسم الله ضرب هذا الدينر سنة . . .

As all gold dinars were minted in Damascus the name of the mint was not indicated on the coin because it was taken for granted.

In the case of the dirhems the obverse read as follows:

لا اله الا
الله وحده
لا شريك له

The mint and the date appeared in the margin.

Dirhems were minted in many cities mostly in Iraq and Iran. So far as we know, no Umayyad dirhems were minted in Palestine.

On the reverse the inscription read as follows:

الله احد الله
الصمد لم يلد و
لم يولد ولم يكن
له كفوا احد

The margin on the reverse of the dirhems was inscribed as follows:

محمد رسول الله ارسله بالهدى ودين الحق
ليظهره على الدين كله ولو كره المشركون

There were four types of fulus struck by the Umayyads after Abdul Malek's monetary reforms. There were some that were inscribed with religious formulae only. Some of these have on the reverse various designs such as birds, animals, reptiles, horsemen, palm trees, stars and so on. Other coins were struck in which the mint only was indicated. Others still were struck with dates only in addition to the religious formulae and finally there were some fulus that were inscribed with both the mint and the date.

Some changes in the minting of coins were introduced during the Abbasid Period. For example at the outset, the coins of Ja'far al Mansur replaced the formula on the reverse with the legend:

محمد
رسول
الله

The name of the crown prince started appearing on the reverse on some coins, and later still the name of the Caliph himself appeared on the reverse after the name of Muhammad.

As from the time of al Hadi, the names of the moneyers were added on the reverse and the formulae became longer. During the reign of al Ma'mun a second margin was added on the edge of the reverse of the coin with the legend:

لله الامر من قبل ومن بعد ويومئذ
يفرح الموءمنون بنصر الله

The petty states which rose after the weakening of the power of the Caliph in Baghdad struck coins similar to those of the Abbasids except that they replaced the name of the Caliph with their own. The currency used in Palestine during the latter half of the Ninth Century and the Tenth Century was Tulunid and Ikhshidid; the latter actually struck some coins in Palestine. Hamdanid coins were used during the Tenth Century after the collapse of the Ikhshidid power in Palestine.

During the Fatimid Dynasty, Fatimid coins were the normal coins used in Palestine. These are generally recognized by the linear script which sometimes appears in two or three concentric circles.

2. The Interlude of the Crusaders

Taking advantage of the disruption of the Abbasid Empire and the rise of a large number of weak petty states, a horde of European adventurers led by disinherited members of the nobility, left Europe to seek their fortune in the Near East in the guise of Christian warriors and under the emblem of the cross. Disunited and at logger-heads with one another the Arab states succumbed to the blow and lost to the Crusaders the entire Mediterranean seaboard. The Crusaders enjoyed the fruits of their victory for a few decades, but at the Battle of the Horns of Hattin above Lake Tiberias the Crusaders were crushed by Salah ed-Din and Jerusalem was recaptured in 1187, eighty eight years after its loss. The Crusaders maintained their hold on some of the fortresses along the coast for sometime after this set back, but in 1273 the last of the Crusader forts, Athlit,fell to the Mamelukes and the country reverted to its rightful owners.

The advent of the Crusaders brought with it new methods of construction, which were not only used during the occupation of the country by the Crusaders, but which also influenced the building traditions of the country for sometime to come. The Crusaders built a large number of churches and castles all over the country and a number of hospices in the larger cities. In addition a large number of churches of the Byzantine Period which had fallen into ruin were to a great extent rebuilt. The Crusaders also built in Jerusalem a few market places or suqs and large store-houses.

The age of the Crusaders witnessed a great spurt in building activity in

Palestine, but especially in Jerusalem. Most of the existing buildings of the period cannot be classified among the private dwellings and belong more to the category of public buildings. There is however no doubt that some private houses were put up, if not by the Crusaders themselves then at least by the indigenous population of the country. It should be borne in mind, however, that even some of the public buildings put up by the Crusaders were used by them for domestic purposes, as the Crusaders remained alien rulers in a foreign country and kept apart from the indigenous population. They did not build small domestic houses among the dwellings of the indigenous population. It is thus more convenient to classify all Crusader buildings, because of their nature, in the category of public buildings. It will be sufficient here to make a few general remarks deduced from the construction methods of the Crusaders as a whole. The structures of the period were built of masonry which was very smoothly dressed diagonally across the face of the stone. Sometimes mason's marks were also incised on the masonry. The walls were built over a firm stone foundation and the masonry was laid in a mortar consisting of lime and sand. Floors were paved with flagstones and each building was provided with a courtyard; windows and doors opened only on the courtyard and there were no openings in the outside walls except for a few arrow slits. Cross-vaults of rubble were used in the roofing and the Crusaders were responsible for introducing into the country ribs set on the soffit of the vaults at the crossing of the vaults. Houses were generally built in two storeys. All these deductions are derived from a Crusader building in Jerusalem which

was reconditioned during the ensuing Ayyubid Period and known at present as al Khanqah as-Salahiyeh.

The most important of the public buildings put up by the Crusaders is the Church of the Holy Sepulchre. The Crusader Church was built along the side of a colonnaded forecourt, but nothing remains of the columns except the stumps of the bases. A double doorway at the north side of the court opens into the church (the west door is now blocked up). Inside immediately facing the entrance is the traditional Stone of Unction, which is now covered by a limestone slab; to the right, steps lead up to Calvary Chapel. Beyond the Stone of Unction is the Church of the Catholicon, now partitioned off by a screen, but formerly open. The church is roofed by a dome carried on four huge arches, supporting a drum resting on pendentives. Facing the Catholicon is the Holy Sepulchre surmounted by a great rotunda carried on tiers of arches opening on to the court of the rotunda. The lower tier consists of narrow arches carried on piers, but concealed within the present piers are slender columns of the Corinthian order, which cracked in 1908 after the great fire and were subsequently walled up to consolidate the structure. Around the rotunda there was an ambulatory, which is now divided into small rooms and chapels. The ambulatory continues around the Catholicon and, about the middle of the east side, stairs lead down to the Chapel of Helena and the Invention of the Cross. The church is built of diagonally dressed stones, a large number of which bear incised masons' marks, and is embellished with columns and arches. The facade, which is now encumbered with a steel scaffolding,

pending its restoration, was richly ornamented with wall arches standing on clusters of columns of the Corinthian order, surmounted by hood moulds carved with floral designs. The Church of the Holy Sepulchre, because of the various chapels and shrines which it was required to include, has had to have a special plan. The other churches of the Crusader Period naturally were different, and most of them were modelled on the basilica church plan of the Byzantine Period. Of these some well preserved examples survive in Jerusalem (the present crypt of the Church of St. John the Baptist and the crypt of the Church of St. Mary of Jehosaphat) in Amwas and at Abu Ghosh.

Crusader castles were built on the plan of Mediaeval castles in Europe. There was an outer castle, built on a square or a rectangular plan, along the sides of a square court, with four square bastions, one at each corner, and a gate in the middle of one of the sides. Within this enclosure there was a keep set within the middle of the court. The outer walls were pierced with arrow slits and, above the gate, there were machiculi from which to throw fire on the attackers. Apart from the arrow-slits in the outer walls of the castle and the bastions, there were no openings at all. All windows opened on to the court. The keep, in which the defenders of the castle made their last stand, was also provided with arrow-slits in the walls and with machiculi above the door. The castles were generally built of large stones dressed diagonally. They were roofed with barrel vaults, built of small stones set in a herring bone pattern. There are many examples of Crusader castles such as the castles at Athlit, Arsuf,

Qal'at el Qurein (Montfort) Qastal, Ascalon and many other places. At Khirbat Iqbala (Aqua Bella) about 13 kms. west of Jerusalem, there is a ruined Crusader Monastery or Convent, built as a fortress.

In Jerusalem, the Knights Hospitallers built a large hospice close to the Church of the Holy Sepulchre, stretching over an area of 150 x 150 yards. At present it is known as the Muristan and part of it is built over, but there are remains ot the original crusader structure at the southeast of the Holy Sepulchre. The original structure appears to have been built along the sides of a large rectangular court and consisted of at least two storeys, fronted by an arcaded cloister. At the east end of the hospice three sheltered market places were constructed consisting of rows of shops built along three parallel streets now known as "The Jewellers' Market" (Suq as-Suyyagh), "The Spice Merchants' Market" (Suq al Attarin), and "The Butchers' Market" (Suq el-Lahhamin). The streets were covered with cross vaults with sky lights at intervals; they were paved with flagstones. In the Tyropacan Street (Khan ez-Zeit) in Jerusalem, there is a number of stores which go back to the period of the Crusaders. They are built of the usual crusader masonry and roofed with ribbed vaults built in herring-bone style.

The Crusaders did not introduce any new pottery techniques; they were content to use the pots made locally with a special predilection for glazed pots.

A mint for coins was established in Jerusalem for the Latin Kingdom established in the city. The kings of Jerusalem struck silver coins showing on

the obverse a cross within a circle with the name of the reigning king in the margin and on the reverse the Holy Sepulchre within a circle and the inscription DE JERUSÀLEM in the margin. In addition Acre minted gold and silver coins with Arabic inscriptions. The gold coins have within an inner circle the following inscription:

الاه (sic) واحد

In the first margin around the inner circle, the coin is inscribed with the legend:

الاب والابن + والروح القدس

In the second margin the date is indicated in this manner:

ضرب بعكا سنة الف ومائتين احد خمسين
تجسد ربنا المسيح

On the reverse around a cross within a circle the coin is inscribed as follows:

نفتخر بصليب ربنا يسوع المسيح الذى
به سلامتنا وبه قيامتنا وبه تخلصنا وعفينا

The silver coins differ slightly. On the obverse, within a square, the coin is inscribed in three lines as follows:

الاب والابن
والروح القدس
اله واحد

In the margin there is another inscription which reads as follows:

لله المجد الى ابد الابدين امين

On the reverse of the coin within an inner circle there is a cross. In ι square around the circle there is an inscription in three lines which reads as ollows:

الله واحد هو
الايمان واحد
المعمودية واحدة

The date is indicated in the margın.

3. Ayyubid Period

Although house construction underwent some development during the long Islamic period, yet the essential features which were introduced under the Umayyad Caliphate were retained and lasted for several centuries until contact with Europe was re-established about the middle of the last century. The features which prevailed thoughout the long period of Moslem domination were the following: First the central open court, which was sometimes converted into a garden but more often it was paved with flagstones. Secondly the rows of rooms ranged along the four but sometimes only along three sides of the court and thirdly, the flat roofs or domes. For some reason or other tile roofs were discarded at sometime or other in the Middle Ages. Thus during the Ayyubid Period which followed the age of the Crusaders, houses were built on a roughly square plan, with a rectangular court in the middle surrounded by rooms on three or four

sides. The houses were built in two storeys and a stairway, set in one corner of the court, led up to the upper floor. The foundations and walls were built of stones about 50 cms. in length and 35 cms. in height, set in a mortar of lime and sand. The walls on the inside were plastered and white-washed. The roofs consisted mostly of cross-vaults on the ground floor, built of rubble, and on the upper floor of flattish domes. The rooms on both floors as well as the court and the terrace were paved with small flagstones. The tops of the domes on the terrace presented an ugly humped appearance. The Ayyubids, no doubt under the influence of the Crusaders before them, provided high portals for the main entrance of the house. The portal was erected in a recess set back from the walls. It was covered with a lofty archway, which was generally pointed, but the door itself occupied only a small part of the portal. Sometimes it was provided with a fan light above. A number of windows were pierced in the wall overlooking the street, but these were latticed with woodwork for privacy; light and ventilation came mainly from the open court in the middle of the house. Windows and doors on the ground floor opened directly on the court, while on the upper floor, a balustraded balcony ran round the court and from it access was gained to the rooms behind.

Ayyubid houses were devoid of decoration of any kind; under the Ayyubid Dynasty austerity was the watchword as we have seen. There is an excellent example of an Ayyubid house in the Old City of Jerusalem called al Khanqah as-Salahiyeh. The house was actually built during the period of the Crusaders but

it was re-conditioned during the era of the Ayyubids.

The Ayyubids continued to produce glazed pottery, but new schools developed in Palestine a style of simple glazing in one or more colours and without any particular design.

The Ayyubids minted gold coins, patterned on the Fatimid dinars, which were struck mostly at Alexandria. Two mints for silver coins were established, one at Aleppo and the other in Damascus in addition to the mints in Egypt. The bronze coins were minted in various centres.

The gold dinars of Salah ed-Din al Ayyubi (Saladin) bear the titles of the Abbasid Caliph as well as those of the Ayyubid sultan.

The titles of the Abbasid Caliph are generally inscribed on the obverse in the field in two lines in this manner:

الامام
امير المؤمنين

The outer margin reads as follows:

محمد رسول الله ارسله بالهدى ودين الحق
ليظهره على الدين كله

The inner margin is inscribed with the formula of faith which reads as follows:

لا اله الا الله وحده لا شريك له

The reverse is inscribed with the name of Saladin. It also has two circles of inscriptions around and one inscription in the area in the middle.

Outer margin: بسم الله ضرب هذا الدينر بدمشق
سنة ثلاث وثمانين وخمسمائة

Inner margin: عال غاية صلاح الدنيا والدين

Area in two lines: الامام الناصر
يوسف بن ايوب

The silver dirhems struck at Aleppo are characterized by a hexagram or six-pointed star on both sides. The name of the Abbasid Caliph, appears on the obverse and the name of the Ayyubid sultan on the reverse.

Within a dotted hexagram in four lines on the obverse the coin is inscribed as follows:

الامام
الناصر لدين
الله امير المؤ
منين

In the margin, within the segments formed by the hexagram and the edge of the coin, the coin is inscribed with the article of faith thus:

لا اله / الا اله / محمد / رسول / الله

On the reverse, within a dotted hexagram, the following inscription appears in four lines:

الملك
الناصر صلاح
الدين يوسف بن
ايوب

The mint and the date appear in the segments of the hexagram as follows:

ضرب / بحلب / سنة / احدى / وثمنين / وخمسما

The dirhems struck in Cairo and Damascus are decorated with a dotted square on both sides.

On the obverse, within a dotted square the name of the Abbasid Caliph is inscribed in three lines thus:

الامام النا
صر لدين الله
امير المؤمنين

In the margin, between the segments of the square and the edge of the coin the article of faith is inscribed thus:

لا اله / الا الله / وحده محمد / رسول الله

On the reverse, within a dotted square part of the name of the Ayyubid sultan appears in three lines as follows:

الملك الناصر
صلاح الد
نيا والدين

The rest of the name of the Ayyubid sultan, the mint and the date are inscribed in the segments around the square thus:

يوسف بن ايوب / ضرب بدمشق / سنة
ست / و سبعين وخمسم

Similar coins were also struck at Cairo.

The bronze fulus struck in Damascus, which circulated in Palestine, are inscribed in the following manner:

Obverse: In middle field: الملك الناصر

In the margin: الملك صلاح الدين
سلطان المسلمين

Reverse: In middle field: يوسف بن ايوب

In the margin: ضرب بدمشق سنة خمس
و ثمانين و خمسمئة

4. Mameluke Period

The austerity of the Ayyubid Period gave place to an extravagance in ornamentation and decoration during the ensuing era of the Mamelukes (A.D.1250-1516). In essentials house construction under the Mamelukes was patterned on that of the Ayyubids, yet the two, because of the great wealth in decoration in the former, appear very dissimilar. In plan there is little to distinguish between the two periods, yet whereas the Ayyubids used only one type and one colour of stone in the whole structure, the Mamelukes used as many as five or six varieties of stone each of different colour including grey marble, pink limestone, black bituminous limestone, white limestone, soft cream sandstone and red finely grained marble. House construction was converted from a domestic

necessity to an expression of art. Decoration embraced the facade of the house, the walls around the court, the tympana over the principal entrance to the house, the lintels over the doors and windows and the floors of the various rooms.

The facades of Mameluke houses were built of courses of stones of various colours. Thus there would be a course of cream coloured limestone, followed by a course of pink stones, a third course of black stones and a fourth of white. The colours would then be repeated until the top course of the wall of the facade is reached. Similarly the walls around the courtyard would be treated in a similar manner.

The principal entrance to the house, like its counterpart in the Ayyubid Period, was set in a lofty portal. The door itself was small and hardly ever exceeded 2.50 m. to 3.00 m. in height and about 1.20 m. in width. A lintel was placed over the door capped by a relieving arch. The lintel was constructed of joggled stones of various colours and materials such as grey marble, bituminous limestone, red limestone and so on. The relieving arch or tympanum was generally decorated with small joggled mosaics of various colours, which formed pleasing geometrical and floral patterns such as stars, fleurs de lys and other patterns. In some of the larger houses, the semi-dome over the portal was decorated with delicately carved stalactites.

The floors of the rooms were paved with marble set in a black border, but in many cases other coloured stones were added. The open courtyard and the roofs were paved with limestone flags. As in the Ayyubid Period, gutters

were placed along the edge of the roof which communicated by means of terra cotta pipes with the drains below the house. In the courtyards of some of the houses, there were jet fountains, which provided another pleasant ornament to an already colourful structure.

Palestine received the special attention of the Mameluke rulers of Egypt who built or repaired a large number of mosques, palaces, schools, mausolea, suqs, caravanserais and fortifications in various parts of the country, but particularly in Jerusalem. In Jerusalem alone, there are no less than ninety eight houses which were built during the Mameluke Period, most of which are still standing and are in actual use. We have already discussed the use of coloured masonry adopted by the Mamelukes under the section on house construction. It now remains to show how this same method was also applied in public buildings. The usual plan adopted for a mosque is basically the plan used by Walid in the Umayyad Mosque at Damascus. The mosque was built on a short axis along the south side of an open court surrounded by arcaded cloisters. The mosque was very often open along the side of the court and separated from it by a row of columns, or if a wall was actually built it was pierced by a large number of doors. The masonry used in each course was different in colour from the courses above and below it. Lintels over doors were built of stones of various colours which were cut into fancy shapes and joggled with one another. In almost every case there was a relieving arch over the lintel. The gate of the court was provided with recesses which were adorned with slender columns and the soffit of the portal

was decorated with stalactites.

The palaces, of which one good example still exists in Jerusalem namely the Palace of Sitt Tunshuq al Muzaffariyeh, were built on the plan of a large house and its essential features were a lofty portal in which a relatively small door was set, an interior court surrounded by rooms in two storeys built with coloured stones on the facade and roofed with lofty cross vaults. The rooms overlooking the street have iron grilles, laced together in a pleasing manner.

A number of mausolea of some of the important persons of the time are to be found in the principal Moslem cities. A typical example is the Mausoleum of Sitt Tunshuq al Muzaffariyeh in Jerusalem. The tomb is placed within a room, opening on to a small forecourt. The walls and doors are treated in the same exuberant manner of the Mamelukes including the lavish use of coloured stones and joggled lintels.

The Mamelukes built a large number of madrasehs or religious schools. Most of these are situated in the Old City of Jerusalem, and all are built on more or less the same plan. Fronting the street is a lofty recessed portal which leads into an open court. The court is surrounded on all sides by rooms in two storeys. The rooms on each floor have high ceilings and were roofed with cross vaults. Perhaps the most important of these which are still well preserved are the al Madraseh al Tushtumuriyeh, al Madraseh at-Tankiziyeh and al Madraseh al Mu'azzamiyyeh in the Bab as-Silsileh Street.

The Mamelukes re-fortified the Citadel in Jerusalem and over the

existing Herodian walls they built a superstructure consisting of a large number of rooms with high cross vaults. But in their fortifications the Mamelukes were more austere and dispensed with the use of coloured stones and only used limestone of uniform colour. But it is very easy to distinguish Mameluke masonry from the manner it was dressed; each individual stone was drafted on four sides and the boss was dressed flat. The Mamelukes rebuilt most of the gates of the Haram Area. The gates were built of multi-coloured stones and the soffit of the semi-dome was decorated with stalactites. A number of sebils, or drinking taps were erected in various parts of the Haram Area and in the city, the most important of which is the sebil of Qaitbay, which consisted of a square room, roofed with a dome, lavishly carved on the outside with a floral pattern.

The ceramic traditions of the previous periods continued under the Mamelukes with one notable addition, namely, the use of heraldic emblems and blazons in the decoration. C.N. Johns discovered a number of bowls decorated with heraldic blazons in the graffiato style at Athlit.

In numismatics the Mamelukes introduced a new system of striking coins which was very simple in style. For example Beybars struck dirhems inscribed in the following manner:

Obverse: Field in three lines: لا اله الا الله
محمد رسول الله
ارسله بالهدى

Margin: ضرب بالقاهرة سنة ثمان وخمسين و ستمائة

Reverse: In three lines:

السلطان الملك
الظاهر ركن الدين
بيبرس قسيم امير الموء

Below: There is a lion moving towards the left.

Burji Mamelukes struck even simpler coins with no design except the inscriptions. Thus Barquq struck dirhems as follows:

Obverse: In three lines:

لا اله الا الله
محمد رسول الله
ارسله

Reverse: In three lines:

السلطان الملك
الظاهر سيف الدنيا والد
ابو سعيد برقوق

Other sultans struck gold, silver and bronze coins along similar lines.

The fulus were simple in the extreme as they generally bear the name of the sultan sometimes set in a floral border on one side and the mint and date on the other. Thus there is a fils of Barquq which has the following inscription on the obverse in three lines:

بدمشق سنة
احدى وتسعين
. . . .

and on the reverse:

السلطان الملك
الظاهر ابو سعيد
برقوق خلد ملكه

During the Mameluke Period different types of bronze weights were introduced. Some were cuboid, some were polygonal and others were cylindrical. In most cases they are decorated with circles on all sides, but there is a cylindrical Mameluke weight in the Museum of the American University of Beirut which is decorated with a lion on either side.

Even the arms of the Mameluke period are decorative. There were helmets provided with pikes and adorned with fringes in metal and cloth, crescent-shaped battle-axes inscribed in the floral Arabic script, breastplates and beautifully ornamented scimitars, swords and scabbards.

With the end of the Mameluke era and the rise of the Ottoman Dynasty we reach modern times.

EPILOGUE

It is apparent from the foregoing survey of the archaeology of Palestine that the country was the home of many divergent folk all through the ages from the appearance of Homo Sapiens in the area in the Thirtieth Millennium B.C. down to the Twentieth Century A.D. In spite of the various invasions of the different nations and races, there always remained a residue of the original inhabitants of the country. In no instance was the indigenous population of the country completely annihilated, but they were absorbed to some extent by the invading nations or races who settled in the country.

One may pose the question then who are the Arabs of present day Palestine, Moslem and Christian alike? The invading Arab armies of the Seventh and Eighth Centuries spread from the borders of India to the Pyrenees. Although they were a nation of warriors primarily, yet they did not annihilate any of the original inhabitants of any country or region, but by slow degrees, through one cause or another, their new subjects found it convenient to adopt Islam and become absorbed by their masters, losing their original ethnic identity. Even when they did not adopt Islam, as the residue of the Christians in Palestine, the Palestinians identified themselves completely with the culture of their overlords.

When the Israelites captured Palestine, they did not annihilate the original population in its entirety as we know from the Canaanite religious practices which continued in vogue long after the Israelites invaded the country. There

always remained a substratum of the original population. Among the present million Arab refugees, there is no doubt that a large number of them are descended from Jews.

With the rise of Christianity a large number of Jews were converted to Christianity, both before and after the Diaspora. In A.D. 70 not all Jews dispersed; a large number of them remained in the country. Some of these were converted to Christianity, others like the small community of the Jews of Peqi'in remained steadfast to their faith. During the Byzantine Period the bulk of the population of the country was Christian, but there remained small Jewish communities as the discovery of a few synagogues of the Byzantine era testify. Thus during the Byzantine Period, the inhabitants of the country may still be considered the descendants of the Amorites, the Canaanites, the Israelites with a thin veneer of Greek and Roman and other nationals. The bulk of the population was Christian in faith but not Roman in origin.

Similarly when the Arabs captured Palestine, the majority of the population were the descendants of the people who had been living in the country from time immemorial and included descendants of the Amorites, the Canaanites, the Israelites, Greeks and Romans. The Arab rulers at the outset were a small ruling caste and formed a small percentage of the total population. In process of time, the local population proceeded to adopt Islam that by the Twentieth Century, the majority of the population of the country became Moslem. Among the so-called Arab population of the country at the beginning of the Twentieth Century,

only few are descended from the Arabs of Arabia. The bulk were Arab by adoption rather than by race. Without doubt there is a large number who are descended from the Biblical Israelites as well as from the Amorites, Canaanites and other nations and races who dwelt in the country.

Looking at the other side of the picture one may well ask who are the Jews that have recently immigrated into Palestine in large numbers? Not all Jews are descended from the Biblical Israelites. The present day Jews are divided into two groups,the Sepharadim, who are without doubt descendants of the Biblical Israelites and the Ashkenazim, the bulk of whom were converted to Judaism at Khazar in Russia during the Eighth Century A.D. At the beginning of the Twentieth Century half of the Jewish population of the world was concentrated between the Baltic and the Black Sea. These were mostly descended from the proselyte Jews of Khazar. It is of course true that there was a great deal of intermarriage between the proselytes and the original Jews, but the fact remains that the descendants of the proselytes have no historical link with Palestine.

To the unprejudiced observer the present struggle over Palestine is not so much a struggle between the Arabs who came from Arabia and the descendants of the Biblical Israelites, but rather it must be viewed as a struggle between the Jews who are mostly descendants of converts to the faith on the one hand and the original inhabitants of the country who are the descendants of Amorites, Canaanites and Israelites, Greeks, Romans and Arabs. The fact that the present inhabitants of Palestine changed their religion twice during the last 2000 years

does not forfeit their claim to the home of their ancestors.

Throughout the history of the country, there was a Palestinian entity. Circumstances have forced the Palestinians time again to change their nationality and creed but basically they remained the same. No solution to the country's problem can be based on justice if these facts are completely ignored. The entity of Palestine must be preserved. Palestine must belong to the Palestinians be they Christians, Jews or Moslems. A state based on the tenets of one faith is inconceivable in the Twentieth Century.

American Jews, English Jews and French Jews living in predominantly Christian countries enjoy equal rights with the other Christian citizens of those countries. The same must apply to Palestine, and the Jew in Palestine should not hold a privileged position over his Moslem or Christian compatriot.

CONCISE BIBLIOGRAPHY

Periodicals

AASOR	Annual of the American Schools of Oriental Research, New Haven (Conn).
ADAJ	Annual of the Department of Antiquities of Jordan, Amman.
APEF	Annual of the Palestine Exploration Fund, London.
BA	Biblical Archaeologist, New Haven (Conn).
BASOR	Bulletin of the American Schools of Oriental Research, New Haven (Conn).
LAAA	Liverpool Annals of Art and Archaeology, Liverpool.
OIP	Oriental Institute Publications, University of Chicago, Chicago.
PEFQS	Palestine Exploration Fund Quarterly Statement, London.
PEQ	Palestine Exploration Quarterly, London.
QDAP	Quarterly of the Department of Antiquities of Palestine, Jerusalem.
RB	Revue Biblique, Jerusalem.

Books



ALBRIGHT, W.F. The Excavations at Tell Beit Mirsim, Vols. I, IA, II and III (AASOR Vols. XII, XIII, XVII, XXI-II).

______________: The Archaeology of Palestine, Harmondsworth, Middlesex.

BRIGGS, M.S. Muhammadan Architecture in Egypt and Palestine, Oxford, 1924.

BURROWS, MILLAR. The Dead Sea Scrolls, New York, 1955.

______________: What Mean These Stones? New Haven, 1941.

CRESWELL, K.A.C. The Muslim Architecture of Egypt, Vols. I and II, Oxford 1952 and 1959

CROWFOOT, J.W. et al: Early Ivories from Samaria, London, 1938.

________________: The Buildings at Samaria, London, 1942.

DE VAUX, R. Revue Biblique, Vols. LIV-LVI, LVIII-LIX, LXII, LXIV.

GARROD, D. et al: The Stone Age of Mt. Carmel, London, 1937.

GRANT, ELIHU. Ain Shems Excavations, Vols. I-IV, Haverford, 1931-9.

GUY, P.L.O. and ENGBERG R.M. Megiddo Tombs.

KENYON, K. Archaeology in the Holy Land, London, 1960.

________________: Beginning in Archaeology, London, 1952.

________________: Digging up Jericho, London, 1957.

KRAELING et al: Gerasa, City of the Decapolis.

LAMON, R.S. et al: Megiddo I, Chicago 1939.

LOUD, G. Megiddo Ivories, Chicago, 1939.

LOUD, G. et al: Megiddo II, Chicago, 1948.

MACALISTER, R.A.S. Gezer, Vols. I-III, London, 1912.

McCOWN, C.C. Tell en Nasbeh, Vols. I-II, New Haven (Conn), 1947.

MARQUET, YVES. Les Fouilles de "Ay, Beyrouth, 1949.

PERROT, M.J. Report on the Excavations of Tell Abu Matar in I.E.J. 5, 6.

PRITCHARD, J. The Ancient Near East in Pictures, Princeton, 1954

________________: Archaeology and the Old Testament, Princeton, 1958.

REISNER, G.A. et al: The Harvard Excavations of Samaria, Vols. I-II, Cambridge (Mass), 1924.

ROWE, A. — The Topography and History of Beth-Shan, Philadelphia (Pa), 1930.

________________: The Four Canaanite Temples of Beth-Shan, Philadelphia (Pa), 1940.

SUKENIK, E.L. — Ancient Synagogues in Palestine and Greece, London, 1934.

WATZINGER, C. — Denkmaler Palestinas, Vols. I and II, Leipzig, 1933-35.

WRIGHT, G.E. — Biblical Archaeology, Philadelphia, 1957.

YADIN, Y. et al: Hazor I and II, Jerusalem, 1958 and 1960.

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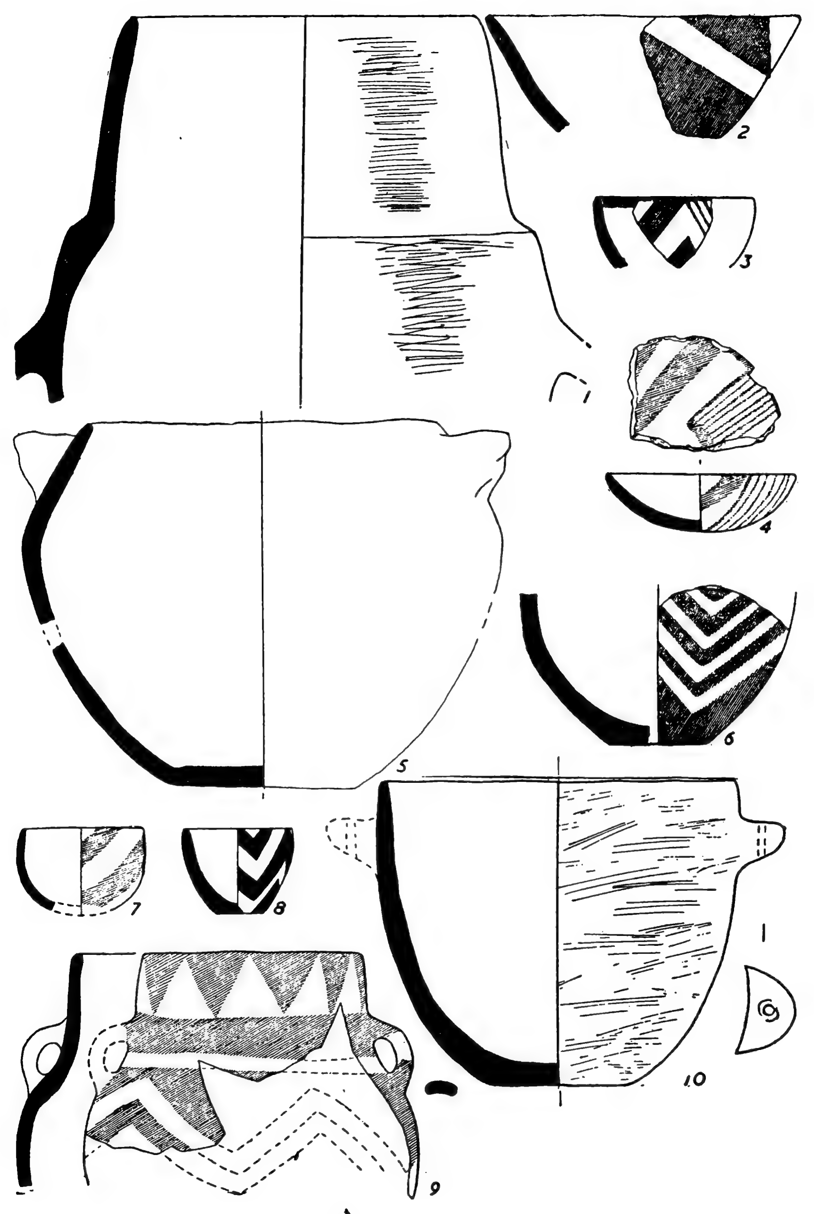


Fig. 1 Neolithic Pottery from Jericho

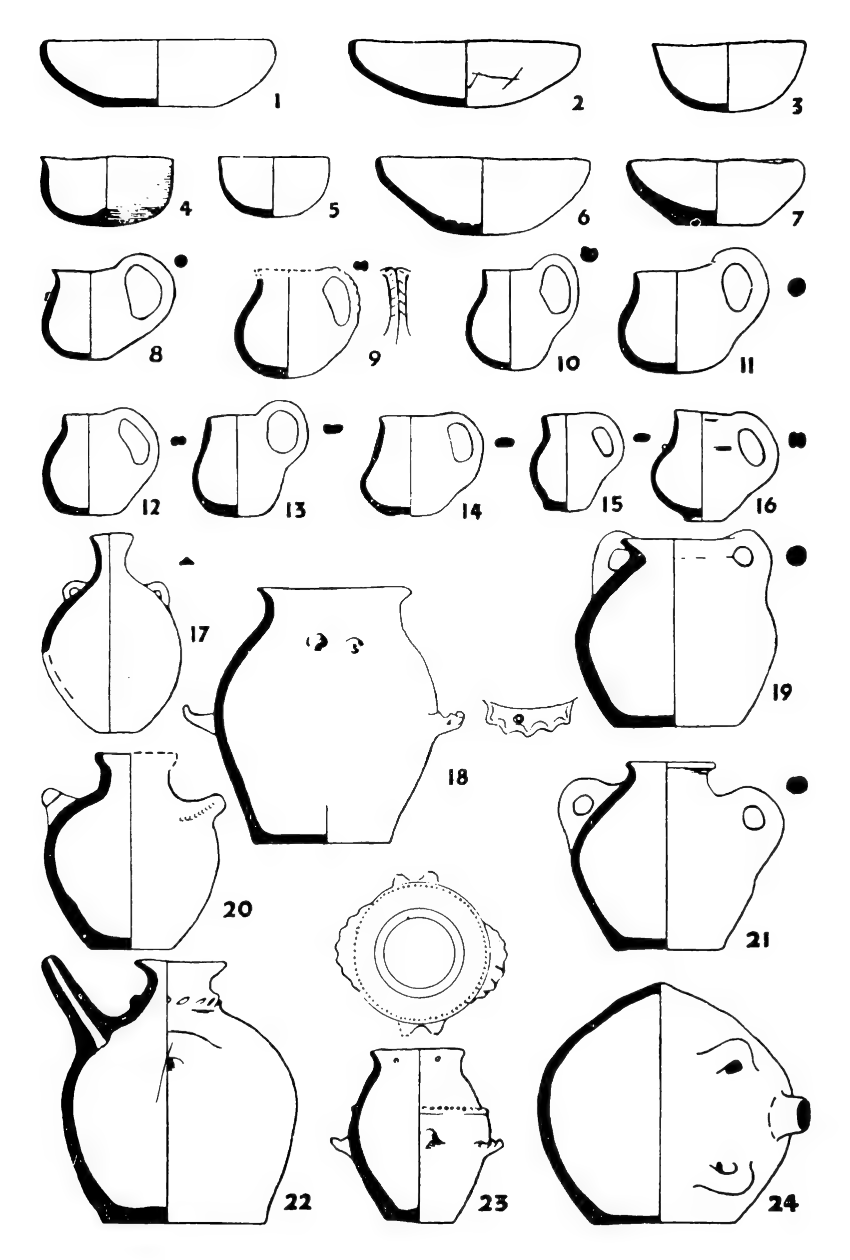


Fig. 2 Late Chalcolithic Pottery from Jericho

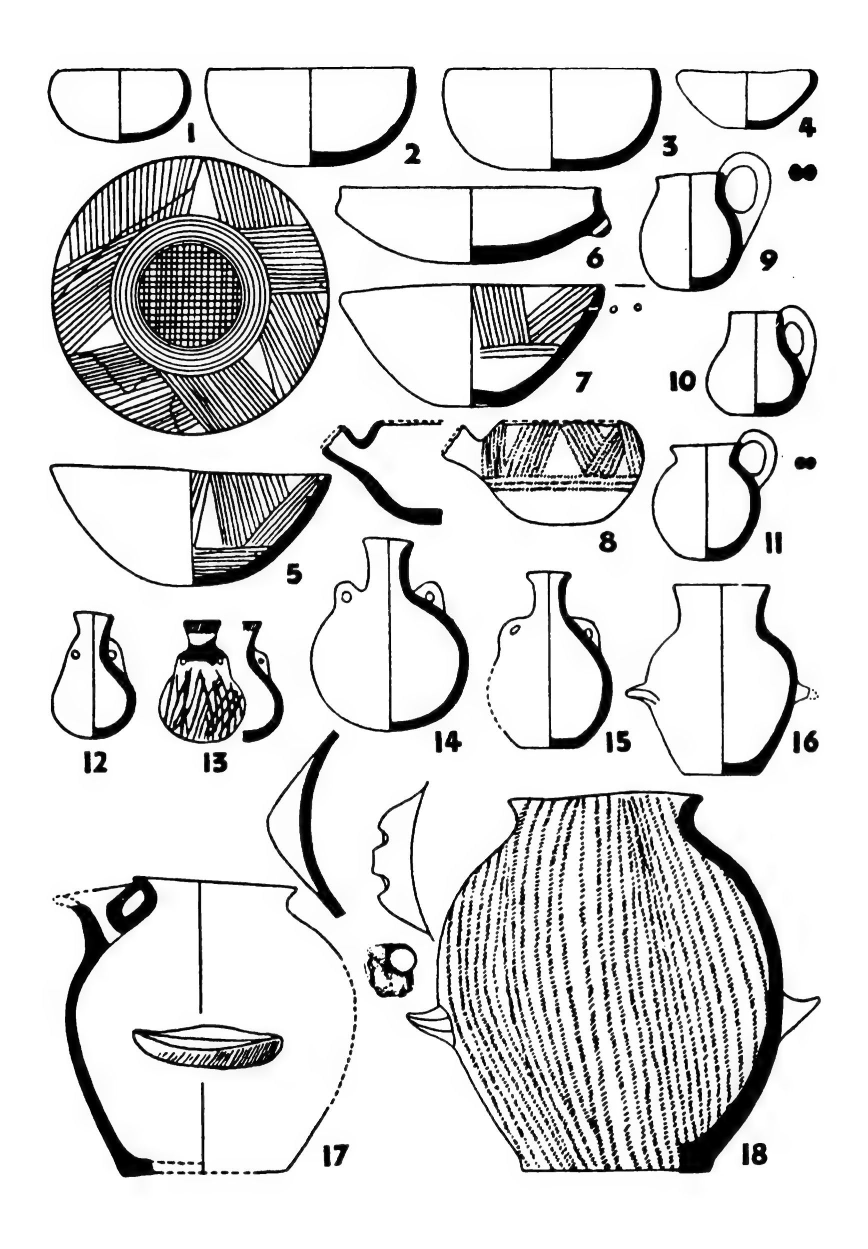


Fig. 3 Early Bronze Age I Pottery from et-Tell.

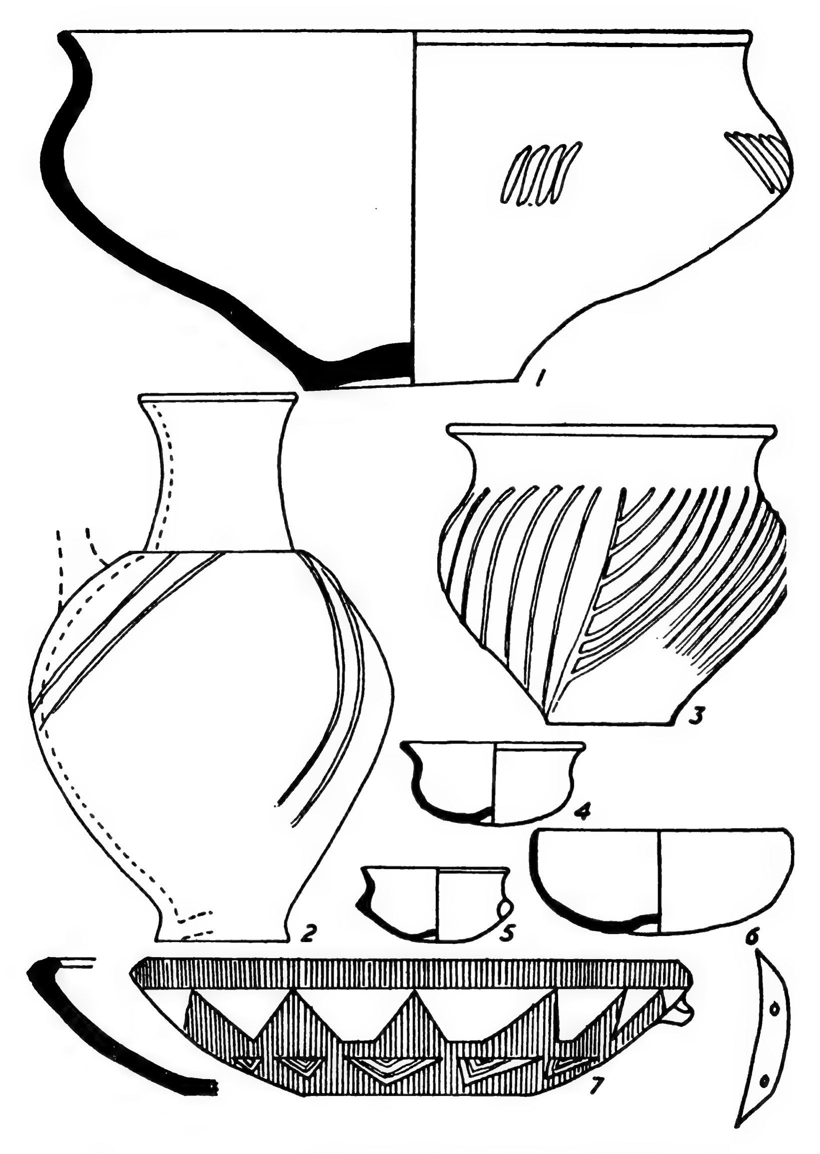


Fig. 4 Khirbat al Kerak Pottery from Beisan.

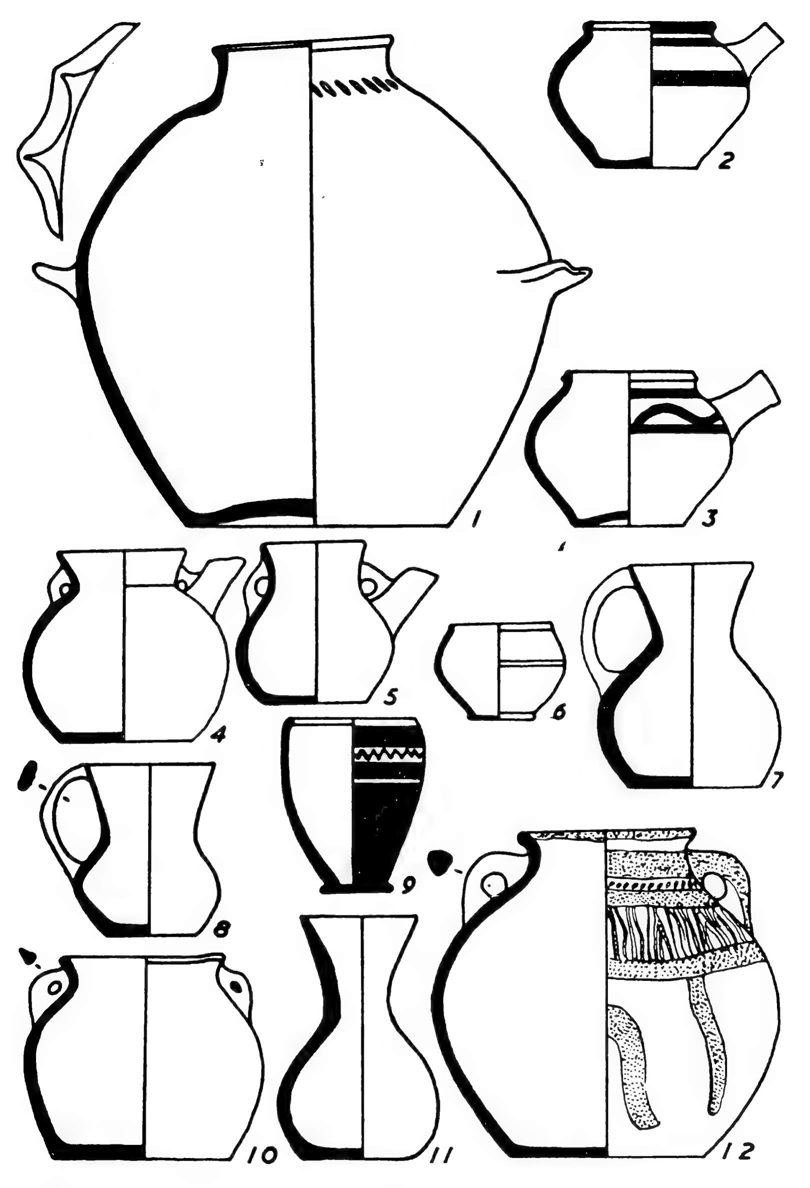


Fig. 5 Intermediate Amorite Pottery from Megiddo.

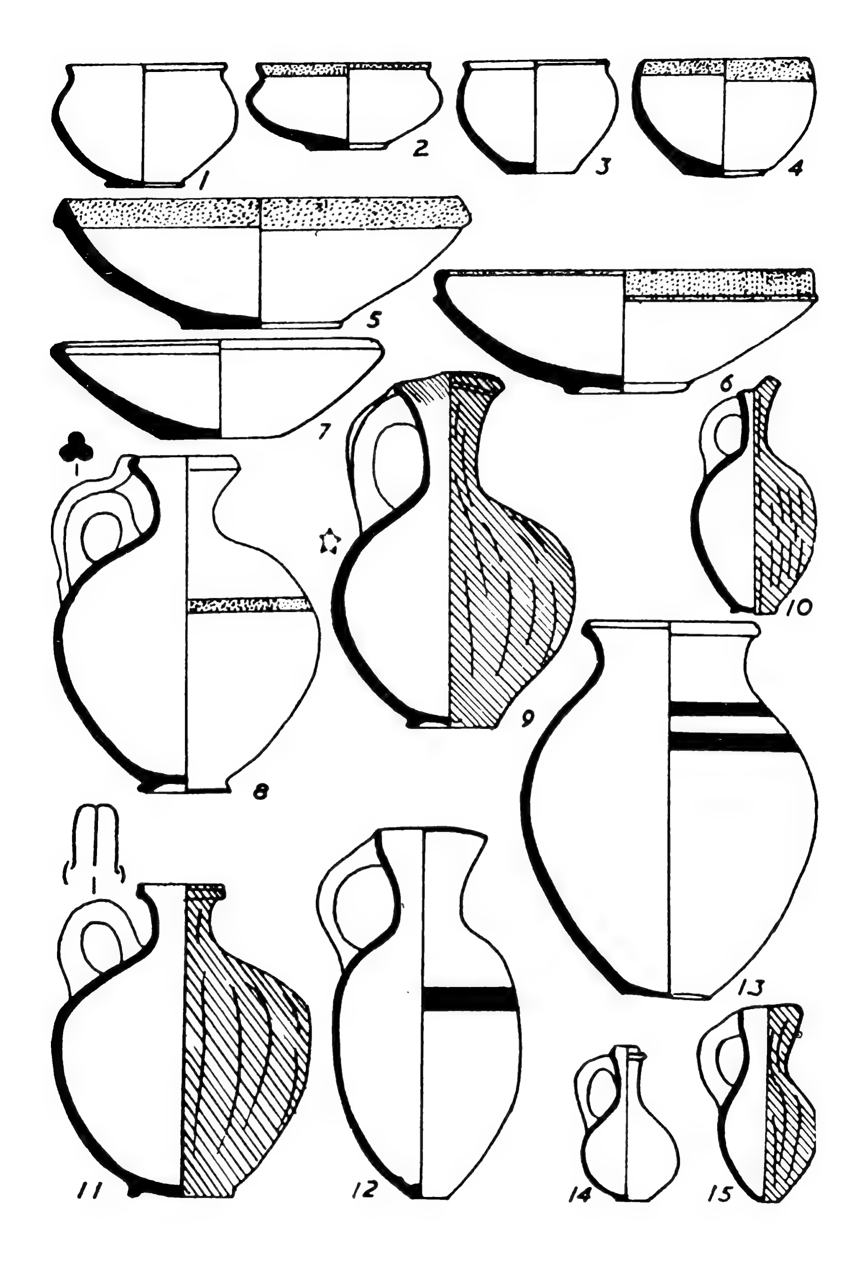


Fig. 6 Middle Bronze Age I Pottery from Megiddo.

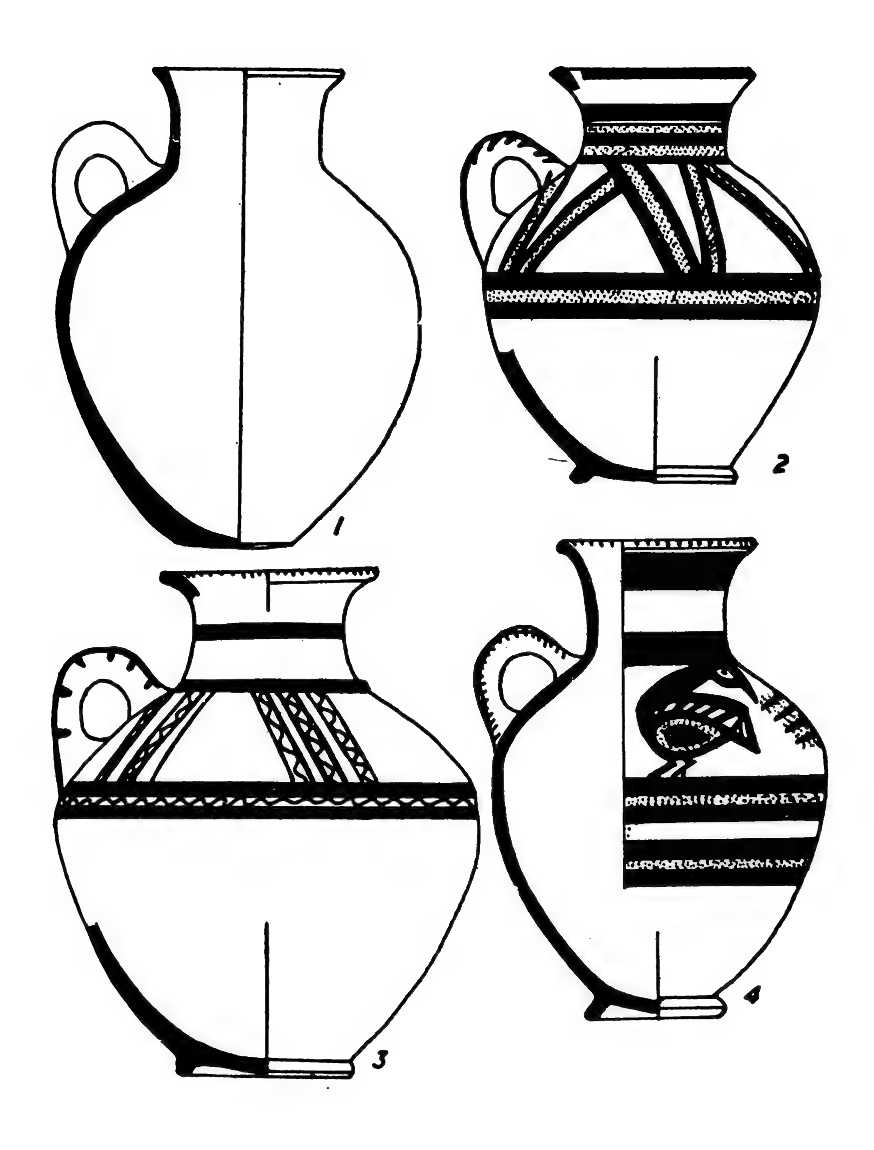


Fig. 7 Late Bronze Age I Pottery from Megiddo.

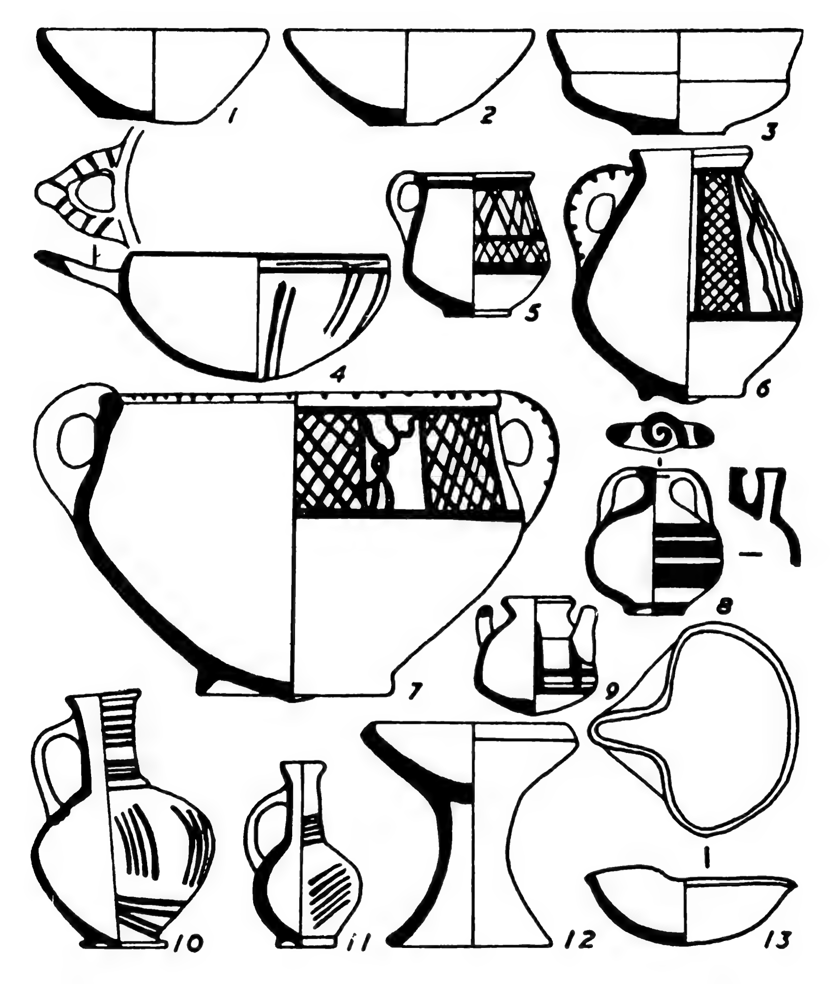


Fig. 8 Late Bronze Age II Pottery from Megiddo.

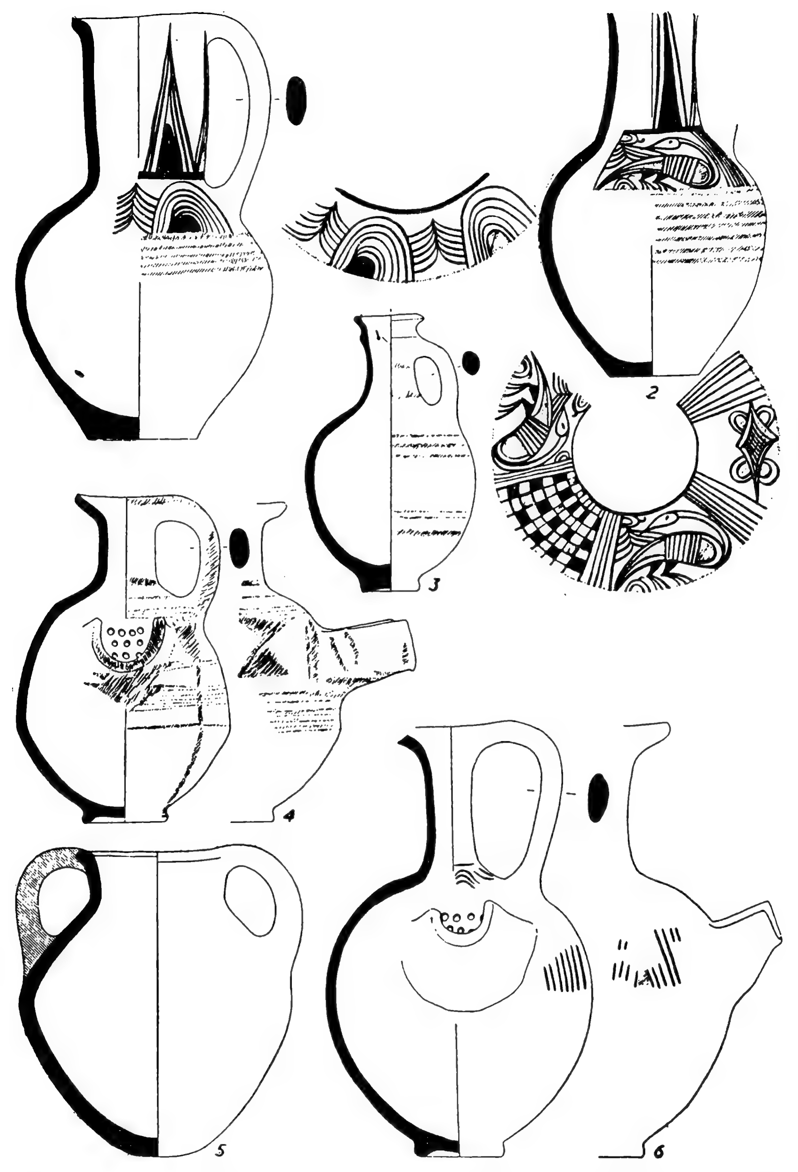


Fig. 9 Philistine Pottery from Tell Fara (Early Iron Age).

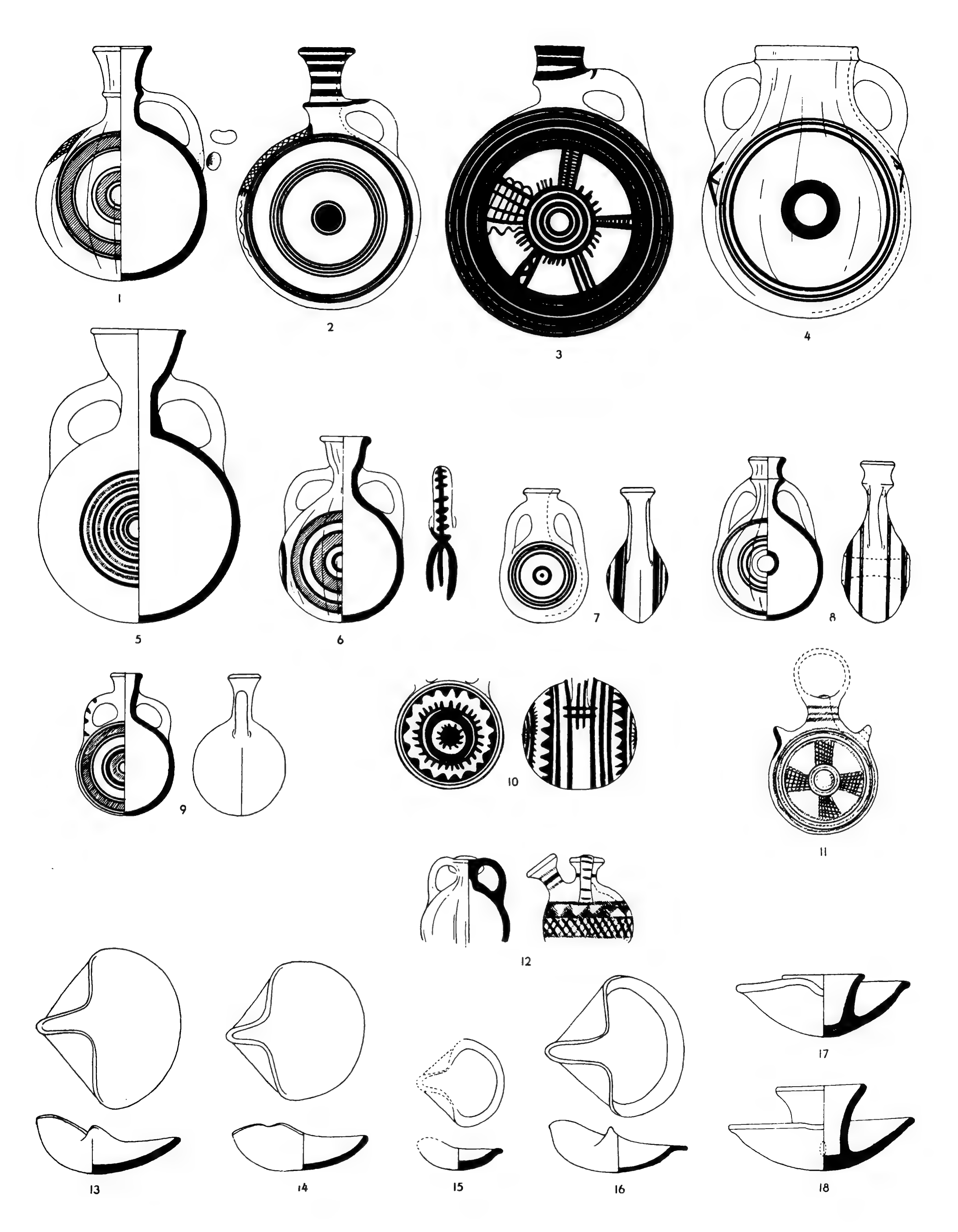


Fig. 10 Early Iron Age Pottery from Megiddo.

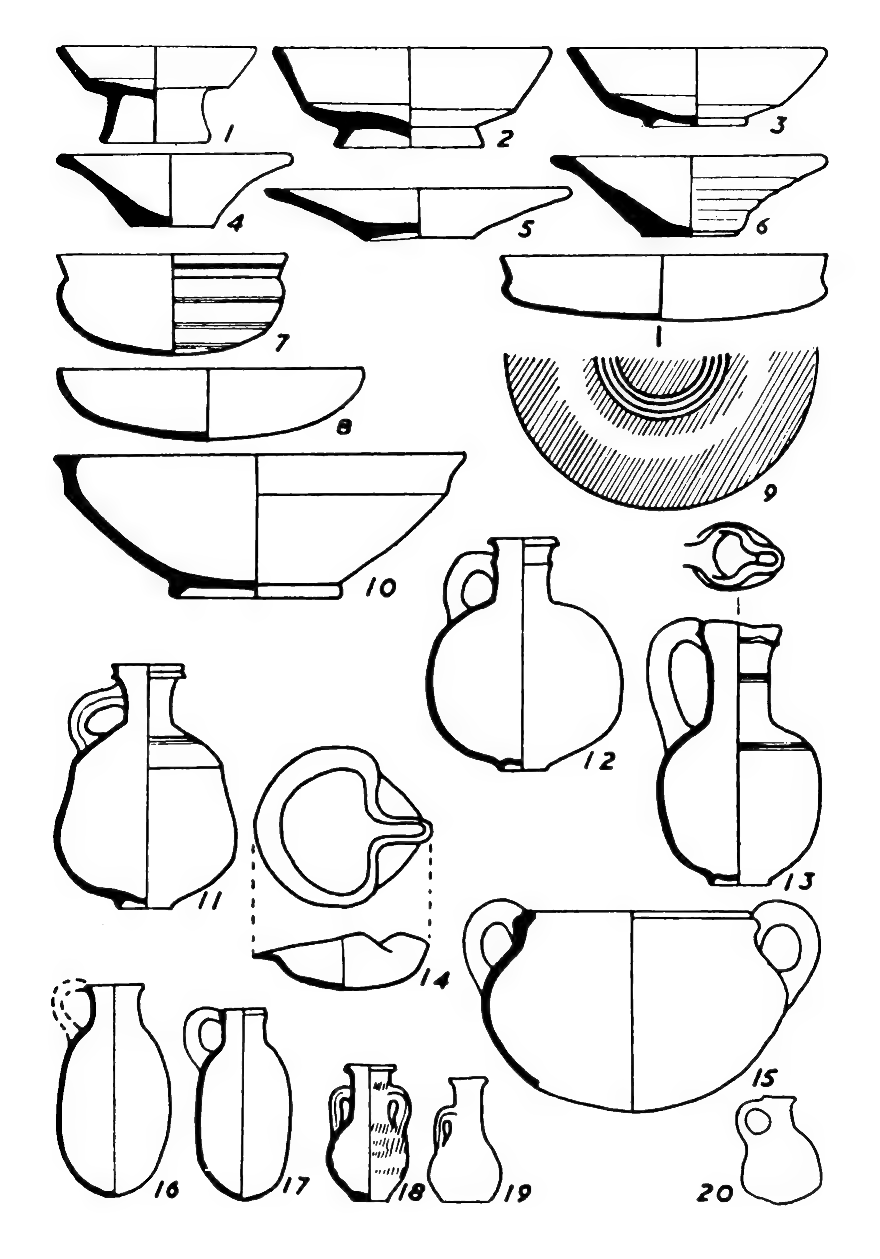


Fig. 11 Middle Iron Age Pottery from Samaria.

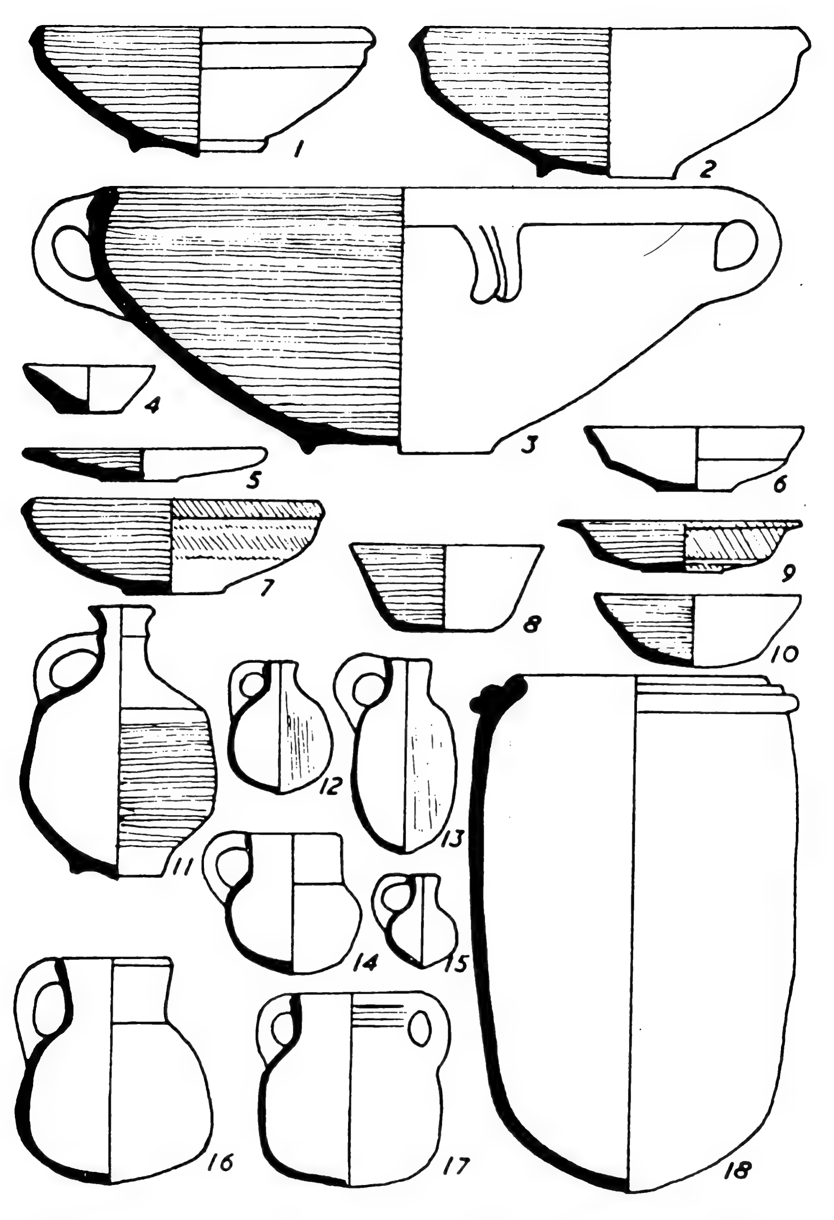


Fig. 12 Middle Iron Age Pottery from Tell ed-Duweir.

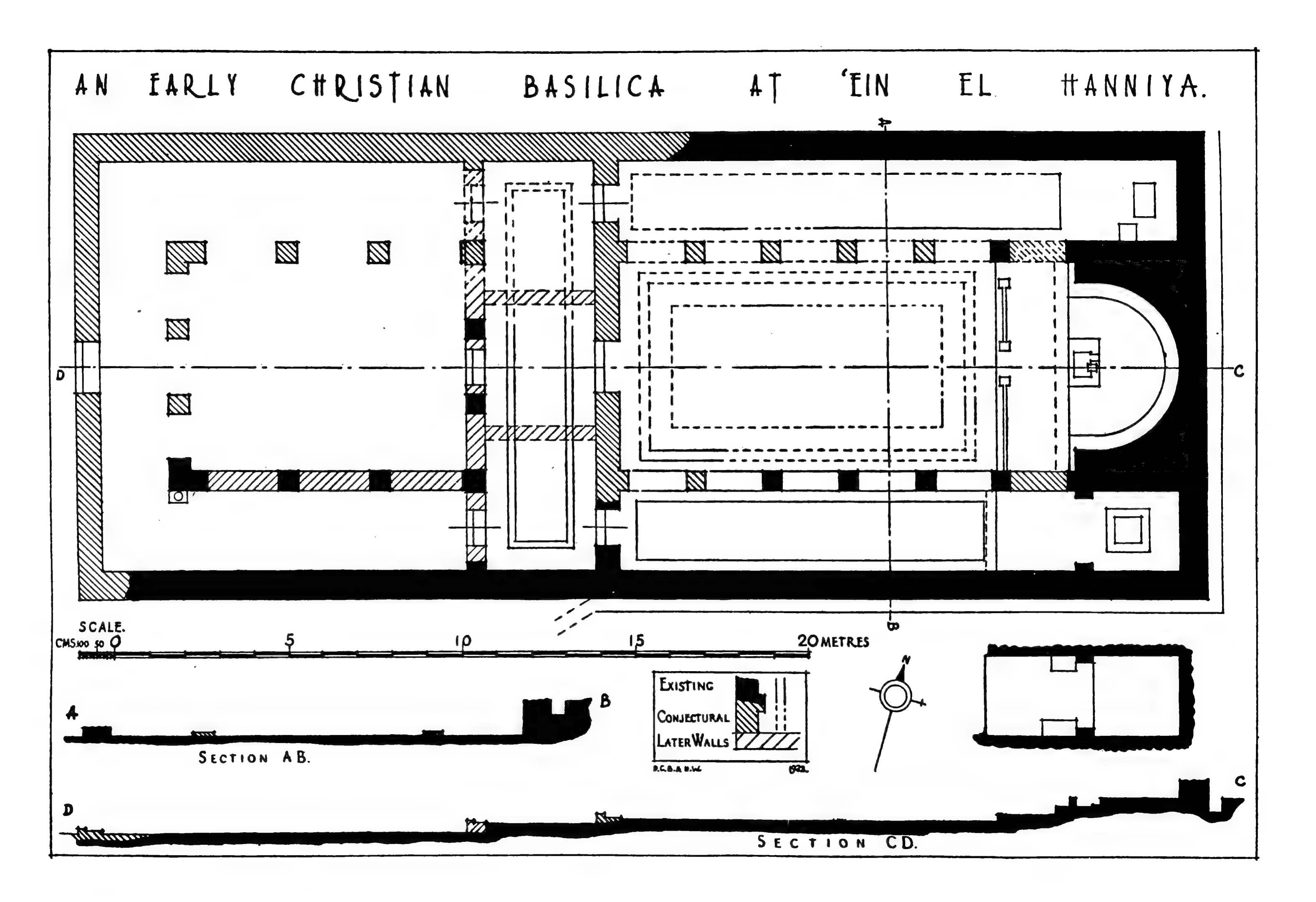


Fig. 13 Plan of Basilica at Ein el Hanniyeh.



Fig. 14 Dome of the Rock.



Fig. 15 Mosaic Pavement from Baths at Khirbat el Mafjar

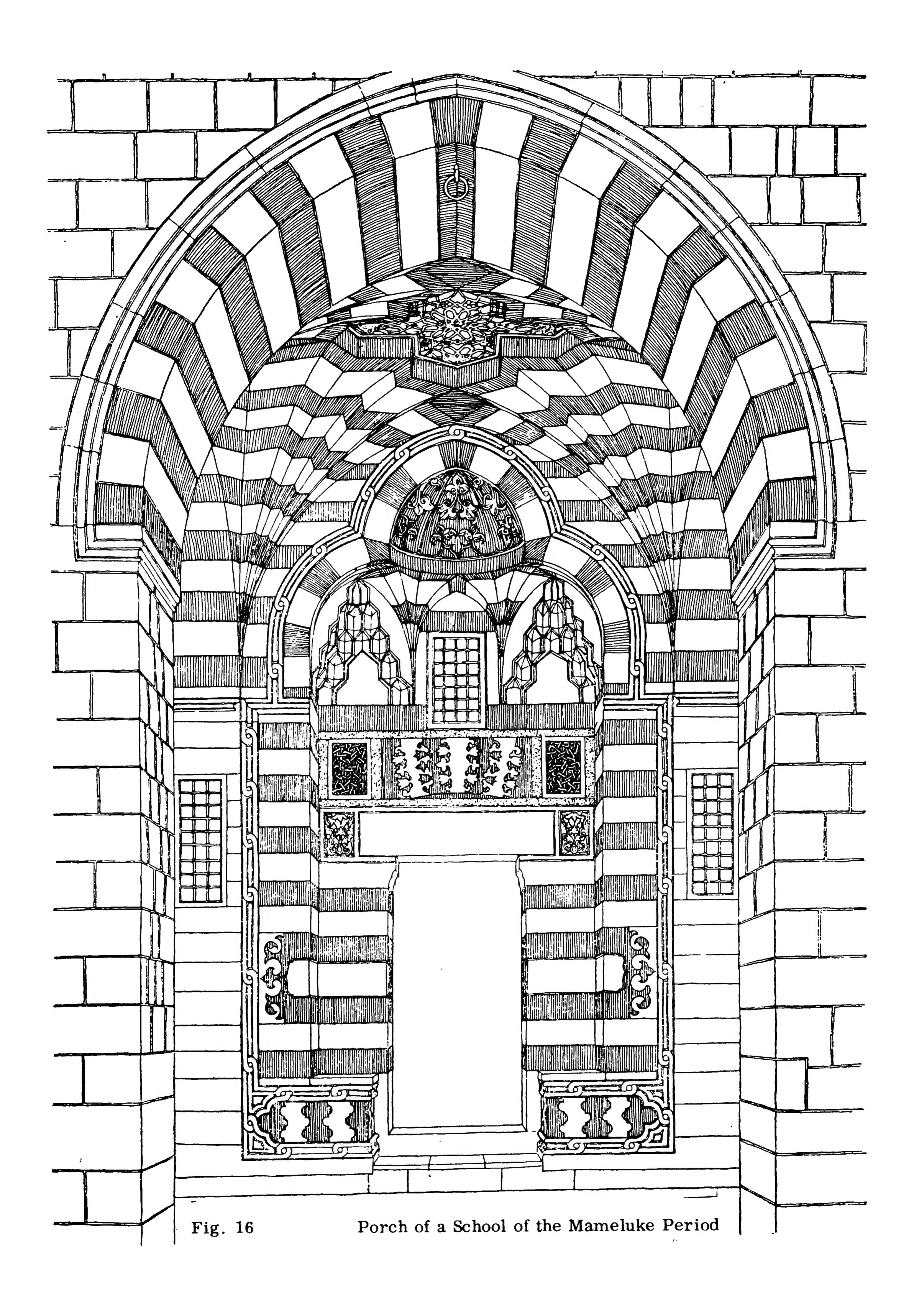
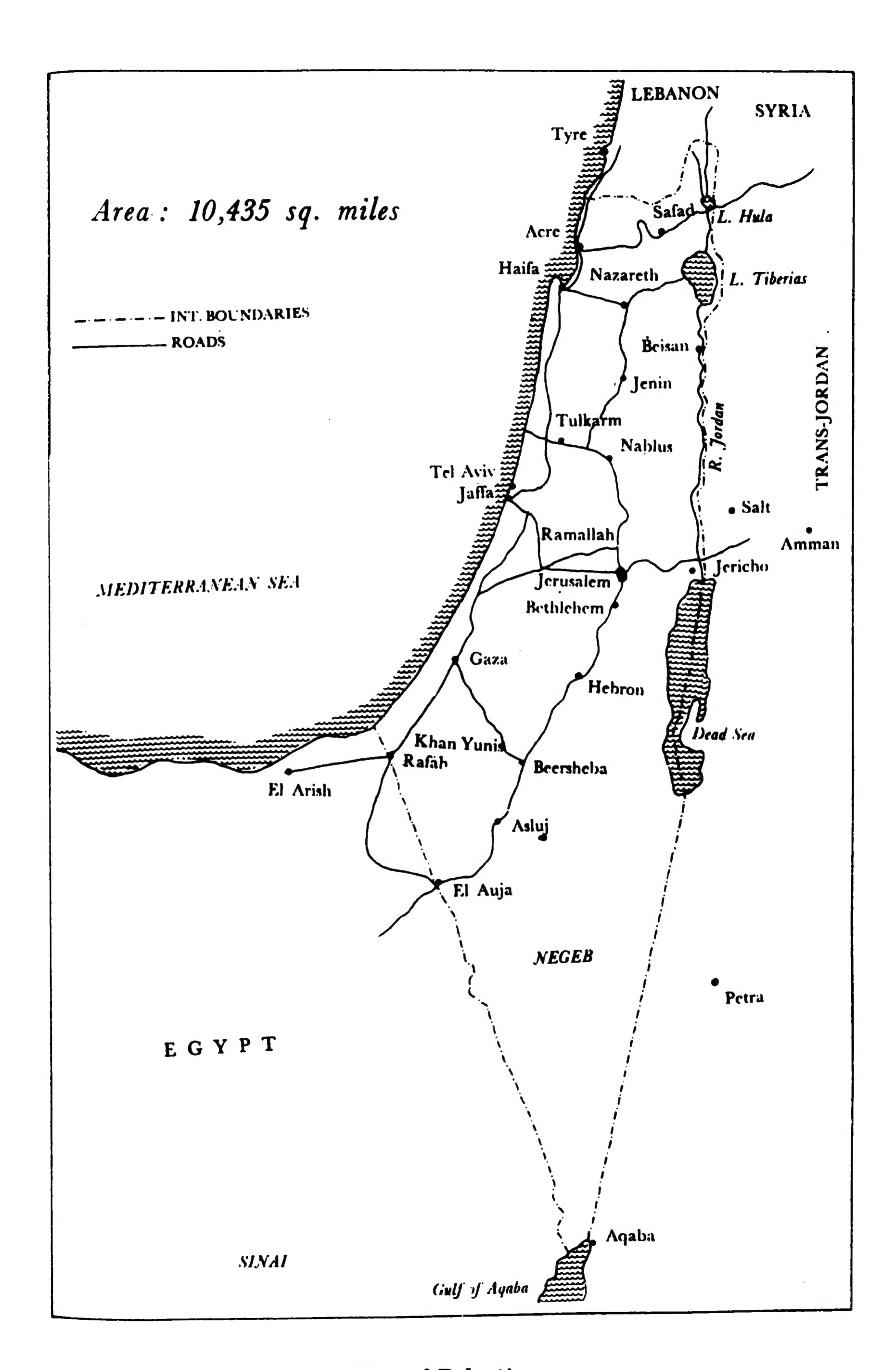


Fig. 16 Porch of a School of the Mameluke Period



Map of Palestine.

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